

**ENVIRONMENTAL ASSESSMENT
OF
ALTERNATE TRAINING AREA
JACK PINE FLATS
IDAHO DEPARTMENT OF LANDS
NEAR COOLIN, IDAHO**



**336TH TRAINING GROUP
U.S. AIR FORCE AIR EDUCATION AND TRAINING COMMAND
FAIRCHILD AIR FORCE BASE, WASHINGTON**

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**FINDING OF NO SIGNIFICANT IMPACT
ALTERNATE TRAINING AREA
JACK PINE FLATS
IDAHO DEPARTMENT OF LANDS
FAIRCHILD AIR FORCE BASE, WASHINGTON**

Federal actions that potentially involve significant impacts to the environment must be reviewed in accordance with the National Environmental Policy Act and all other applicable environmental laws. The U.S. Air Force has completed an Environmental Assessment (EA) of the potential environmental consequences associated with conducting Survival, Evasion, Resistance, and Escape (SERE) School training activities on Idaho state lands in Jack Pine Flats near Coolin, Idaho. SERE School activities will be conducted in accordance with a use permit/lease with Idaho Department of Lands, a collection permit with Department of Idaho Fish and Game, and U.S. Air Force Operating Instructions OI-60-1. This Finding of No Significant Impact (FONSI) incorporates the EA by reference and summarizes the results of the evaluation.

Background

The U.S. Air Force Air Education and Training Command, 336th Training Group based at Fairchild Air Force Base, Spokane, Washington has been conducting SERE School training activities on the nearby Colville National Forest since 1966 and the Little Pend Oreille National Wildlife Refuge since 1967. The purpose of the training is to prepare combat military personnel for survival, evasion, resistance, escape, and the eventual return to friendly forces. The program trains approximately 4000 students per year. Essential to this training is to simulate combat situations in a variety of environmental conditions. Training areas must have adequate availability and diversity of natural resources, remoteness, and topography to provide a "real situational" experience for the students.

In 2005, SERE School's use permit with the Little Pend Oreille National Wildlife Refuge was discontinued due to a change in land management objectives at the Refuge. Loss of this training area has constrained SERE School's ability to rotate classes to different settings and has removed the option of an alternate in the event of unavailability on the Colville National Forest. The lack of an alternative training area leaves SERE School's program vulnerable to disruption and scheduling conflicts particularly in the event of unforeseen events such as wildfire. It also constrains SERE School's ability to rotate use to minimize concentrated use of one area and to assure conservation of resources.

Proposed Action

SERE School has evaluated several new locations for an alternate training area. The Jack Pine Flats area, on Idaho state lands, has been identified to be a preferred location. Jack Pine Flats is within a 1-2 hour drive proximity of both Fairchild AFB and the field base operations facilities at Tacoma and Ruby Creeks, near Newport, Washington. The area is a good

replacement for the Refuge area as it has a similar temperate forest setting and remoteness, and is of adequate size and topography to provide a diverse training environment.

The proposed action is for SERE School to conduct the Specialist Training Course, S-V81-A on a routine basis and the Basic Training Course, S-V80-A on an "as needed" basis when access to the main training area on the Colville National Forest is unavailable. The Specialist Training Course trains approximately 150 students annually and by 2010 may increase to 300 students. Typically, this course will hold two to four classes per year with class sizes averaging 40 students and by 2010 may increase to 75 students. The total amount of time per year at Jack Pine Flats (JPF) would vary from four to eight weeks. In the event of wildfire or other events preventing access to the main training areas on the Colville National Forest, the Basic Training Course may be moved temporarily to Jack Pine Flats. The Basic Training Course, S-V80-A involves cycling about 82 students through a 5 day course, 49 weeks of the year. The use for Basic Training will be temporary in nature until access to the Colville National Forest training areas is resumed.

Findings

The Proposed Action has been evaluated for potential environmental effects in accordance with NEPA as implemented by the regulations of the Council on Environmental Quality and AFI 32-7061. Below is a summary of this evaluation and the key measures identified to protect the environment from significant impacts.

Air Quality: The Proposed Action will have a local and temporary impact on air quality but will not increase significantly from current uses in the area. The number of campsites and frequency and amount of vehicular activity is relatively small relative to the size of the area. Duration and concentration of smoke from campfires and dust from vehicular traffic will be at a level similar or less than recreational and timber management activities currently conducted in the area. Natural air flow patterns should disperse smoke and dust resulting in short duration effects on air quality.

Noise: Sounds from all present and proposed activities are transient and of short duration and occur in a forested setting which diffuses intensity of noise. These factors serve to minimize the chance of elevated noise at levels that pose adverse effects to public health. The Proposed Action will increase the frequency of noise from helicopter operation and introduce a new noise from simulated machine gun fire during evasion training exercises. The forest vegetation will insulate sounds from traveling any significant distance. Noise during evasion training will be limited in duration usually lasting no more than 3-4 hours and the location will be varied to minimize repeated noise concentration in one area. These measures will minimize disturbance to wildlife and to those using public lands. Helicopter over-flight and landings at Cavanaugh Bay associated with other military exercises occur already routinely. The addition of flights from SERE School will be an increase over existing levels. Sounds will be transient lasting for only minutes in an area. All hovering exercises are conducted on state lands avoiding land features known to be important nesting habitat for wildlife. SERE School is accustomed to adjusting flight patterns as concerns arise to minimize disturbance over private

landowners at other training areas and as a practice avoids hovering in areas adjacent to private lands. If conflicts should occur, the proposed permit/lease area is large enough to accommodate flight plan adjustments when necessary.

Water Resources: The Proposed Action will not affect water quantity and will not significantly affect water quality or important land features associated with maintaining the quality of water resources such as riparian areas and wetlands. All campsites will be located at least 300 feet away from perennial streams and at least 50 feet away from season streams and wetlands. Unused campsites will be restored and latrines removed. These measures will minimize potential for sediment delivery and potential water contamination from latrines. Use of standing dead or live trees will be restricted to conserve wood for recruitment for riparian stability and aquatic habitat. Vehicular use is limited to existing roads and approved skid trails. Any road maintenance or road improvement and snow removal will be conducted only upon approval of Idaho Department of State Lands. Coordination with IDL will assure these activities are conducted in a manner to meet accepted best management practices to protect water quality.

Geologic Resources: The Proposed Action will affect soil condition within an acceptable limit. Routine use of campsites will compact soils and remove vegetation similar to what occurs in developed and heavily used non-developed recreation campgrounds. The amount of area impacted is relatively small. The combined area of all proposed campsites will be less than .6 acre which is less than .01 percent of the proposed permit/lease area. Including the existing recreational sites, the impact area would be less than 2 percent. Other existing land uses that degrade soils in the analysis area are gravel pit areas and roads. These areas occupy about 4 - 5 percent of the area.

Research has demonstrated that detrimental conditions from compaction in campsites can be reversed with revegetation in about 6 years (Cole 1978 in Reid 1993). Thus, impacts to soil quality from SERE School operations are not considered long term or irreversible.

Cultural Resources: The Proposed Action will have slight to no potential for significant impacts to cultural resources. No historic or cultural resources requiring conservation or protection have been identified within the proposed permit/lease area. The Proposed Action includes Air Force Operating Instructions OI-60-1 which require operations to protect sites if they should be discovered and to report discoveries to the appropriate authority. In addition, annual coordination meetings with Idaho Department of Lands will inform SERE School of new discoveries and provide for adjustment as necessary.

Biological Resources: There are four wildlife species and one fish species known to occur within the proposed permit/lease area listed as threatened or endangered under the Endangered Species Act. The species are Canada lynx, grey wolf, grizzly bear, bald eagle, and bull trout. Informal consultation with U.S. Fish and Wildlife Service was completed in October 2008 where they have concurred with the finding that the proposed action has no significant affect on these listed species.

No federally listed threatened or endangered or proposed plants or forest communities are known to occur in the proposed permit/lease area. There are several plants with "survey and

manage" requirements for nearby U.S. Forest Service lands that could occur in the analysis area. Several species listed on Idaho's Species of Concern for Bonner County and/or on the U.S. Forest Service "survey and manage" list for adjacent Forests could occur.

The Proposed Action incorporates numerous conservation measures to assure protection or conservation of wildlife and vegetation. Use of native materials for structures and for demonstration purposes will be limited in size, collection location, and amount as to not effect plant species distribution or sustainability or wildlife species dependent on this vegetation for habitat. Human disturbance will be limited to small concentrated areas or by duration and/or by alternating training locations. Activities will avoid important critical habitats such as wetlands and cliff areas. Collection or trampling of "at risk" wildlife or plant species identified by federal, county or state agencies will be avoided. Instructors are trained to identify these species and their habitats by a qualified natural resource expert. Vehicles will be checked for noxious weed seed and cleaned prior to moving from an area to another area to reduce the potential for spread of undesirable plant species. Collection of wildlife species will be regulated and monitored by Idaho Fish and Game. Use of plant materials and location of activities will be regulated and monitored by Idaho Department of Lands.

Infrastructure and Land Use: The Proposed Action will use existing road for transporting SERE School personnel and students by light truck, passenger van and/or bus. Current local traffic is light and increases in traffic load by SERE School are anticipated to not create congestion above current levels. Use of gravel pits for helicopter landing sites will be coordinated with primary users to avoid conflicts with gravel extraction. Coordination of air space use with the local airport is required by Air Force Instruction and Federal Aviation policy. Other in-holdings will be avoided by SERE School activities and thus, no impacts to land use of these areas are anticipated. SERE School activities will accommodate and will not limit Idaho Department of Lands timber management activities.

The Proposed Action may result in voluntary displacement of some existing recreational uses seeking isolation. Two areas along Priest River have been identified by SERE School for primary campsites, both of which are known to be routinely used by unregulated, dispersed campers and for boat put in/take out. There is adequate land area for both uses to occur. A benefit for SERE School presence will be the potential for improved sanitation practices in these areas. Also, U.S. Forest Service lands and Priest Lake State Park nearby, present a close by alternative for recreationalists with similar opportunities for camping.

The Proposed Action includes mitigation measure to reduce land use conflicts, as follows: 1) restriction to operations during modern fire arm hunting season, 2) coordination with the local snowmobile group and Idaho Department of Lands prior to snow removal on roads, 3) annual coordination meetings with Idaho Department of Lands for planning and adjustment of operations as needed, 4) avoid noise disturbance near private lands and limit duration of noise in the same vicinity, and 5) nearby campers and forest users will be notified prior to training exercises using simulated gunfire or other loud noise makers.

Safety and Occupational Health: The potential for injury as a result of SERE School activities in Jack Pine Flats is no more than for areas currently used for training. Nearly thirty years of experience operating in the similar environment of Colville National Forest provides a wealth of knowledge as to how to conduct operations in a safe manner. Regular safety

instruction as well as coordination with landowner forest harvest activities and wildlife specialists will be an effective means of preventing potential hazards to the welfare of SERE personnel. .

Socioeconomics: The Proposed Action will have little economic positive or negative on the area. Operations are supported by Command Posts supplied through government purchase authority. There is potential for a small increase in local purchase of incidental items and fuel. The SERE School program is limited to military personnel and the decision to operate at JPF has little effect on minorities or low income populations over an above the effects contributed by the U.S. Air Force as a whole.

Fire Protection: No significant increase in wildfire ignition by the Propose Action is anticipated. Experience with SERE School operations on the Colville National Forest indicates that incidence of fire has not increased in their training areas and that this can be attributed to rapid detection and initial-attack on fires by provided by SERE School presence (USDA Forest Service 2000).

Fire prevention measures required by U.S. Air Force Operation Instructions OI-60-1 and the proposed permit/lease specify clearing to mineral soil around fire rings, limiting size of fire rings, limiting fires during high fire danger days, and complete extinguishing of campfires. All of these procedures significantly reduce the potential for wildfire ignition.

Indirect and Cumulative Impacts: An analysis of the Proposed Action, in conjunction with other present and proposed activities, concluded that no significant cumulative environmental impacts would occur.

Public/Agency Review

A Notice of Availability for the Draft EA was published in the Newport Miner, a local weekly newspaper for the Newport and Priest River, Washington and Sandpoint, Idaho areas on March 18, 2009. The Notice of Availability was electronically mailed to the Priest Lake District - Idaho Department of State Lands, Coeur d'Alene Office - Idaho Department of Fish and Game, Newport Ranger District - Colville National Forest, and Spokane Office, ESA Administration Group - U. S. Fish and Wildlife Service. A copy of the draft EA was deposited at the Priest Lake Public Library from March 18 through April 20, 2009. The public/agency comment period ended on 20 April 2009. No comments were received.

Availability

A copy of the Final EA is available from:

92 CES/CEO
100 W. Ent St.
Suite 155
Fairchild AFB, WA 99011
(509) 247-2313

Conclusion

Based on the EA incorporated by reference and conducted in accordance with the requirements of NEPA, CEQ Regulations, and AFI 32-7061, I conclude that the Proposed Action will have no significant individual or cumulative impacts upon the environment. An Environmental Impact Statement is not warranted and one will not be prepared. The signing of this FONSI completes the Environmental Impact Analysis Process under Air Force regulations.

APPROVED BY:



RONALD R. DANIELS
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COVER SHEET ENVIRONMENTAL ASSESSMENT (EA)

U.S. AIR FORCE - 336TH TRAINING GROUP ALTERNATE TRAINING AREA IDAHO DEPARTMENT OF LANDS - JACK PINE FLATS NEAR COOLIN, IDAHO

Responsible Agency: Department of the Air Force, Air Education and Training Command, 336th Training Group, Fairchild Air Force Base, Washington

Proposed Action: 336th Training Group (TRG) proposes to conduct survival, evasion, resistance, and escape training for military personnel in the Jack Pine Flats area under permit/lease with Idaho Department of Lands.

Contact Information: Comments and inquiries regarding this document should be directed to: 1st Lt Noellani Bacnis, 92 Air Refueling Wing, Public Affairs, Fairchild AFB, WA 99011. Phone: (509) 247-5706.

Report Designation: Environmental Assessment

Agency/Public Review Period: A 30 day review period took place beginning March 18, 2009 and no comments were received.. A Notice of Availability was published in the local newspaper for the area, the Newport Miner and was sent to local offices of federal and state land and resource management agencies. A copy of the EA was available in the local library for the area, the Priest Lake Public Library, Hwy 57, Priest Lake, ID and upon request.

Abstract: A new alternate training area is proposed by Air Education and Training Command, 336th Training Group (SERE School) to replace a discontinued training area used since 1967. SERE School conducts year round training of combat personnel in survival techniques and has current facilities at Fairchild Air Force Base and outpost training facilities on the Colville National Forest. Several new alternate training areas have been analyzed with a preferred location identified on Idaho state lands south of Coolin, Idaho. The proposed area is about 12,500 acres administered by Idaho Department of Lands and is locally known as Jack Pine Flats. This environmental analysis assesses potential effects to environmental and infrastructure elements as a result of SERE School's proposal to conduct training activities in this area. Assessment of two alternatives, the proposed action and no action was completed. The result of the analysis is that no significant impacts would result from implementation of the Proposed Action or the No-Action Alternative. The Proposed Action is preferred as it restores flexibility and continues stability in the training schedule for the SERE training program; allows for needed rotation of training locations to minimize impacts to natural resources from concentrated use; and provides for an alternate training area near existing facilities. The No Action Alternative requires SERE School to continue to search for a new location for its alternate training area and places the continuity of the program at risk.

TABLE OF CONTENTS

List of Figures and Tables	ii
List of Acronyms and Abbreviations	ii
Foreword	iii

Chapter 1 Purpose and Need for Action and Scope of Assessment

1.1 Introduction and Background.....	1
1.2 Purpose and Need	3
1.3 Scope and Content of the Environmental Assessment	3
1.4 Decisions to be Made.....	5
1.5 Public and Agency Participation	5
1.6 Summary of Key Environmental Compliance Requirements.....	5

Chapter 2 Description of Proposed Action and Alternatives

2.1 Proposed Action	6
2.2 Alternatives Considered.....	9
2.2.1 No-Action Alternative.....	9
2.2.2 Alternatives Eliminated from Further Consideration	10
2.3 Mitigation Measures and Monitoring Procedures	10

Chapter 3 Affected Environment and Comparison of Environmental Consequences

14

3.1 Introduction and General Setting	14
3.2 Air Quality	14
3.3 Noise.....	16
3.4 Water Resources.....	18
3.5 Geologic Resources	21
3.6 Cultural Resources.....	22
3.7 Biological Resources	23
3.7.1 Fish and Wildlife	24
3.7.2 Native Vegetation	35
3.7.3 Timber Management.....	38
3.7.4 Noxious Weeds.....	39
3.8 Infrastructure and Land Use.....	40
3.9 Safety and Occupational Health.....	42
3.10 Socioeconomics.....	43
3.11 Fire Protection	44

Chapter 4 EA Preparer.....

45

Chapter 5 Persons Consulted and/or Provided Copies.....

46

References and Literature Cited 47**Appendices****List of Figures and Tables**

Figure 1. Location of SERE School's Proposed Alternate Training Area	2
Figure 2. IDL Proposed Use Permit/Lease Area for SERE School Alternate Training	9
Table 1. Potential Alternate Training Areas Evaluated	10
Table 2. Animal Species of Special Concern	25
Table 3. Plant Species of Special Concern	36

Appendices**LIST OF ACRONYMS AND ABBREVIATIONS**

CFR	Code of Federal Regulations
CO	Carbon Monoxide
DOPAA	Description of Proposed Action and Alternatives
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EO	Executive Order
EPA	U.S. Environmental Protection Agency
FONSI	Finding of No Significant Impact
Fairchild AFB	Fairchild Air Force Base
IDEQ	Idaho Department of Environmental Quality
IDL	Idaho Department of Lands
IDFG	Idaho Fish and Game
JPF	Jack Pine Flats
NEPA	National Environmental Policy Act
OI	Operating Instructions
OSHA	Occupational Safety and Health Administration
PM	Particulate Matter
ROI	Region of Influence
SERE School	Survival, Evasion, Resistance, and Escape School
TMDL	Total Maximum Daily Load
USAF	United States Air Force
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service

Chapter 1: Purpose and Need for Action and Scope of Assessment

1.1 Introduction and Background

The U.S. Air Force Air Education and Training Command, 336th Training Group, (referred hereafter as the SERE School) is proposing to conduct survival training on Idaho state lands in the area known as Jack Pine Flats, south of Coolin, Idaho. SERE School is based at Fairchild Air Force Base (AFB), Spokane, Washington. The program trains approximately 4000 students per year in both a classroom setting at Fairchild AFB and outdoor settings in various locations in the northwest United States.

The purpose of survival training is to prepare combat military personnel for survival, evasion, resistance, escape, and the eventual return to friendly forces. Essential to this training is to simulate combat situations in a variety of environmental conditions. Training areas must have adequate availability and diversity of natural resources, remoteness, and topography to provide a "real situational" experience for the students.

There are two classes conducted by SERE School. Basic Training (S-V80-A) is a 5 day introductory course situated in the same location and exposes large groups of trainees to general survival skills. Specialist Training (S-V81-A) is an advanced, more intensive course held at several locations providing the students with an array of environmental challenges. These courses are further described in Chapter 2.

SERE School has been conducting both courses in the Colville National Forest since 1966 and continues to utilize established training areas as their main training area for temperate forest conditions. The Little Pend Oreille National Wildlife Refuge has been used as an alternate training area for Basic Training and used for several phases of the Specialist Training course since 1967.

In 2005, SERE School's use permit with the Refuge was discontinued. Loss of this training area has constrained SERE School's ability to rotate Specialist Training classes to different settings and has removed the option of an alternate site for Basic Training in the event of unavailability of routine sites on the Colville National Forest. The lack of an alternative training area leaves SERE School's program vulnerable to disruption and scheduling conflicts particularly in the event of unforeseen events such as wildfire. It also constrains SERE School's ability to rotate use by the Specialist Training course to minimize concentrated use of one area and to assure conservation of resources.

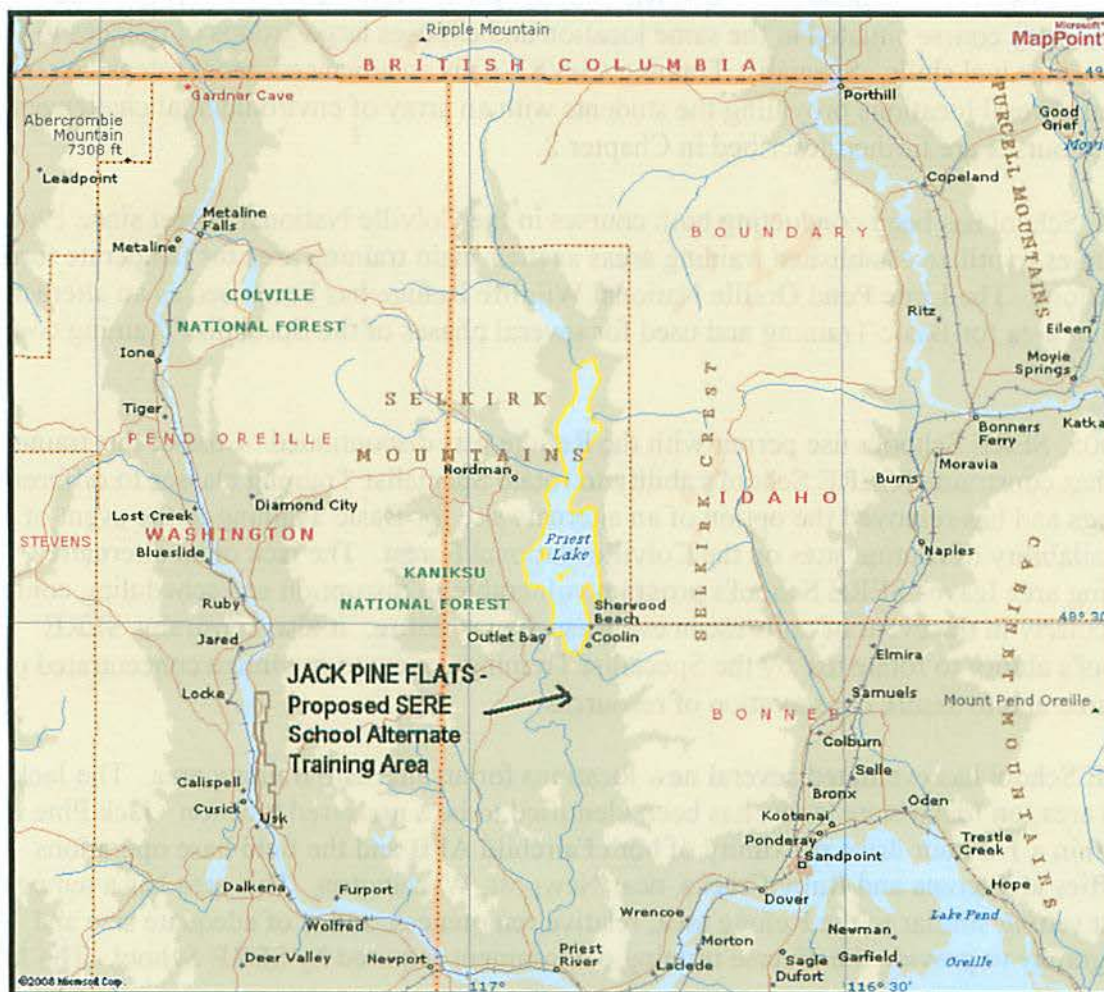
SERE School has evaluated several new locations for an alternate training area. The Jack Pine Flats area, on Idaho state lands, has been identified to be a preferred location. Jack Pine Flats is within a 1-2 hour drive proximity of both Fairchild AFB and the field base operations facilities at Tacoma and Ruby Creeks, near Newport, Washington. This area has a temperate forest setting similar to the Refuge area, relative remoteness, and is of adequate size and topography to provide the diverse training environment required by SERE School. The Jack

Pine Flats area is separated by distance and topography from the main training areas on the Colville National Forest which should preclude both areas being involved in wildfire at the same time.

A proposed use permit/lease with Idaho Department of Lands (IDL) has been drafted identifying about 12,500 acres for training activities. Coordination and mitigation requirements have been identified. They are based upon successful administration and conservation practices required of SERE School operations on the Colville National Forest and specific requirements by IDL. Collection of animals for sustenance is part of the training. Idaho Department Fish and Game (IDFG) has issued a collection "take" permit which outlines the number and kind of wildlife that SERE School is allowed to use in its training program. The permit also requires annual documentation and coordination.

The proposed training area is located south of Coolin, Idaho and east of the Priest River as shown in Figure 1. A more detailed map showing the proposed permit/lease boundary relative to terrain, roads, and in-holdings is located in Chapter 2.

Figure 1. Location of SERE School's Proposed Alternate Training Area



1.2 Purpose and Need

The Proposal

The proposed action is for SERE School to conduct the Specialist Training Course (S-V81-A) on a routine basis and to conduct the Basic Training Course (S-V80-A) in the event an alternate site is needed, on identified Idaho state lands in the Jack Pine Flats area south of Coolin, Idaho. The scope of the training is discussed in detail in Chapter 2.

Purpose

The purpose of the proposed action is to replace the recently discontinued temperate forest alternate training area at Little Pend Oreille National Wildlife Refuge with an area of similar size area and environmental setting and that is within close proximity to existing command centers and Fairchild AFB. The identified area in Jack Pine Flats is a preferred location because offers adequate size, close proximity to command centers, and similar environmental setting as the previous alternate training area.

Need

The loss of the alternate training site has placed SERE School's capability and flexibility to manage its training program at risk. Due to the nature of the SERE training mission to have a "real situational" experience and the large number of students receiving training throughout the year, large tracts of diverse lands are needed to implement a successful survival training experience and to minimize adverse impacts to environment. "Work-arounds" since the loss of the Refuge training area have accommodated the program in the short term, but rotating within the same training area does not address the need to move out of the area in the event of wildfire or the need to rotate sites for long-term sustainability of environmental resources.

The Jack Pine Flats area is suited to SERE School's needs as it offers abundant and diverse natural resources, remoteness, and diverse topography while being logistically located near existing command posts. The area is separated topographically by a major river system from the main training areas on the Colville National Forest which provides assurance that the two areas will not be involved in wildfire at the same time. Other areas evaluated were either too small, did not provide adequate diversity of resources, or lacked the diversity in topography required for a suitable training experience.

1.3 Scope and Content of the Environmental Assessment

This Environmental Assessment (EA) evaluates, to the fullest extent possible, the environmental consequences of the proposed action and a no action alternative. Direct, indirect, and possible cumulative impacts are evaluated for air quality, water resources, noise, geologic resources, biological resources, cultural resources, infrastructure and land use, fire protection, safety and occupational health, and socioeconomic resources. The data obtained through completion of the EA will in turn be utilized to assist decision making authorities in

making environmentally informed decisions. This EA is being completed in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969.

The evaluation will determine whether the proposed action results in environmental impact significant enough to warrant preparation of an Environmental Impact Statement (EIS), or whether the action will qualify for a Finding of No Significant Impact (FONSI).

The analysis area is defined by the region of influence of the proposed action and varies with the nature and extent of the resource. Most resources will be evaluated within a site-level scale or within the proposed use permit/lease boundary, i.e., air quality, noise, geologic resources, cultural resources, infrastructure and land use, safety and occupational health, socioeconomic resources and fire protection. Other resources extend outside the proposed permit/lease boundary and for these resources, both site level and regional level analysis will be conducted, i.e., water resources, biological resources, fire protection.

This assessment uses as a resource, the over 40 years of experience of SERE School operations on the Colville National Forest and elsewhere. Requirements for environmental mitigation and successful coordination of operations have been established and are documented in Air Force Operating Instructions OI-60-1 and are considered a part of the proposed action in the assessment.

Recent environmental assessments conducted by the Colville National Forest have evaluated potential environmental effects and consequences on similar lands. Issues explored in these assessments (USFS 2000 and USFS 2007) have been surveyed as a preliminary scoping tool for the assessment. Where environmental conditions vary, this assessment addresses potential environmental effects and consequences specific to the Jack Pine Flats Area; where conditions are similar and appropriate this assessment relies upon the experience gained at the Colville National Forest.

Initial coordination with Idaho Department of Lands (IDL) and Idaho Department of Fish and Game (IDFG) has identified potential issues and management requirements relative to the proposed action. This assessment includes these management requirements in the evaluation of the proposed action. These management requirements are documented in the IDL's proposed use permit/lease and IDFG's collection permit. These documents are on file at Fairchild AFB.

Preliminary scoping has identified federally-listed endangered or threatened species within the assessment area. This assessment includes the results of informal consultation with U.S. Fish and Wildlife Service (USFWS).

Preliminary scoping has identified one historic site in Coolin, Idaho on Idaho State's historic/cultural database. No sites are identified within the proposed permit/lease area, hence consultation with Idaho State Preservation Office is not required for this assessment. No tribal use sites have been identified.

1.4 Decisions to be Made

The Wing Commander at Fairchild AFB is the Deciding Official. The decision to be made is whether or not SERE School will conduct training operations as described in the proposal at Jack Pine Flats. Included in the proposal are all existing management requirements as identified by the land manager, IDL, appropriate regulatory agencies, and Air Force Operating Instructions OI-60-1.

Decisions on location of campsites, use schedule, and unplanned activities not covered by a management requirement are not a part of this decision and will be made on a case by case basis, prior to use, and during annual coordination meetings with the landowner and appropriate regulatory agencies.

1.5 Public and Agency Participation

Scoping has been conducted with IDL and IDFG. Informal consultation has been completed with USFWS for protection of federally listed endangered, threatened species and those proposed for listing. These agencies and the public are invited to comment on this draft environmental assessment and comments will be considered in the final environmental assessment.

1.6 Summary of Key Environmental Compliance Requirements

National Environmental Policy Act of 1969 (NEPA), as amended

NEPA requires all Federal agencies to use a systematic, interdisciplinary approach in decision making which may have an impact on man's environment. Therefore, NEPA directs agencies to assess expected environmental impacts of all Federal actions and proposals. In turn, this data must be considered in the decision making process. USAF Compliance with NEPA is accomplished through the guidance outlined in 32 CFR 989, Environmental Impact Analysis Process (EIAP).

Other Environmental Statutes and Regulations

To comply with NEPA, this analysis considers other relevant environmental statutes and regulations. According to the Council on Environmental Quality regulations, requirements of NEPA must be integrated "with other planning and environmental review procedures required by law or by agency so that all such procedures run concurrently rather than consecutively.

Chapter 2: Description of Proposed Action and Alternatives

2.1 Proposed Action

SERE School proposes to conduct survival, evasion, resistance, and escape training for combat personnel on Idaho Department of Lands in the Jack Pine Flats Area, south of Coolin, Idaho. An IDL use permit/lease has been drafted that defines the perimeter for the activities and management requirements for operations. The proposed permit/lease boundary and campsite areas are identified in Figure 2, on page 9.

Planned operations will involve conducting the Specialist Training Course, S-V81-A on a routine basis and the Basic Training Course, S-V80-A on an "as needed" basis when access to the main training area on the Colville National Forest is unavailable due to an unforeseen circumstance such as wildfire. The intent is not to use the area for a prolonged period for the Basic Training Course.

The Specialist Training Course trains approximately 150 students annually and by 2010 may increase to 300 students. Typically, this course will hold two to four classes per year. Class size currently is about 40 students and by 2010, class size may increase to 75 students. Classes will use the Jack Pine Flats area for a two week period and then move on to another training area. The total amount of time per year at Jack Pine Flats (JPF) would vary from four to eight weeks.

In the event of wildfire or other event preventing access to the main training areas on the Colville National Forest, the Basic Training Course may be moved temporarily to Jack Pine Flats. The Basic Training Course, S-V80-A involves cycling about 82 students through a 5 day course, 49 weeks of the year. The use of JPF for this training course will be temporary in nature and the schedule and duration of operations at JPF are dependent on the extent and nature of the need to move to this alternate site.

Training will not be conducted during modern fire arm hunting season as a requirement of the proposed IDL use permit/lease.

Field activities and infrastructure requirements are explained for both training courses below.

Specialist Training Course, S-V81-A

The Specialist Training course prepares instructors to teach the S-V80-A course. Students in S-V81-A receive training in survival living skills, techniques of teaching and the ability to combine all the elements of survival, evasion, resistance, and escape to be a SERE Specialist Instructor. Students learn and practice the fundamental field skills – shelter, food, water and fire craft. These skills are then further combined with practice of evasion, resistance and escape in a simulated combat situation. Search and rescue by helicopter is also practiced. A variety of training camps are used, while other phases involve overland travel with small overnight camps. Some phases require larger camps for class instruction. Operations are

expected to be about 2 weeks per class at JPF with a total of 8 weeks for the entire year's program.

Typically, there are five to ten Static Camps and one Instructor Camp required for class instruction per session. Mobile camps support teams of two to four students. Static Camps may increase to ten to fifteen campsites and Instructor Camps may increase to two campsites by 2010 with an increased student load from 40 to 75 students.

S-V80-A

The Basic Training course teaches students basic skills and techniques in shelter construction, food and water procurement, fuelwood gathering and fire craft, land navigation, cross county travel, air craft and ground communication with rescuers, and recovery. About 49 S-V80 –A classes are taught each year. Class duration is five days and four nights. The first one and one-half to two days of training are in a Static Camp. After learning some basic skills the students go on a two day cross-country trek with their instructors, spend one night alone in the forest, and learn evasion skills.

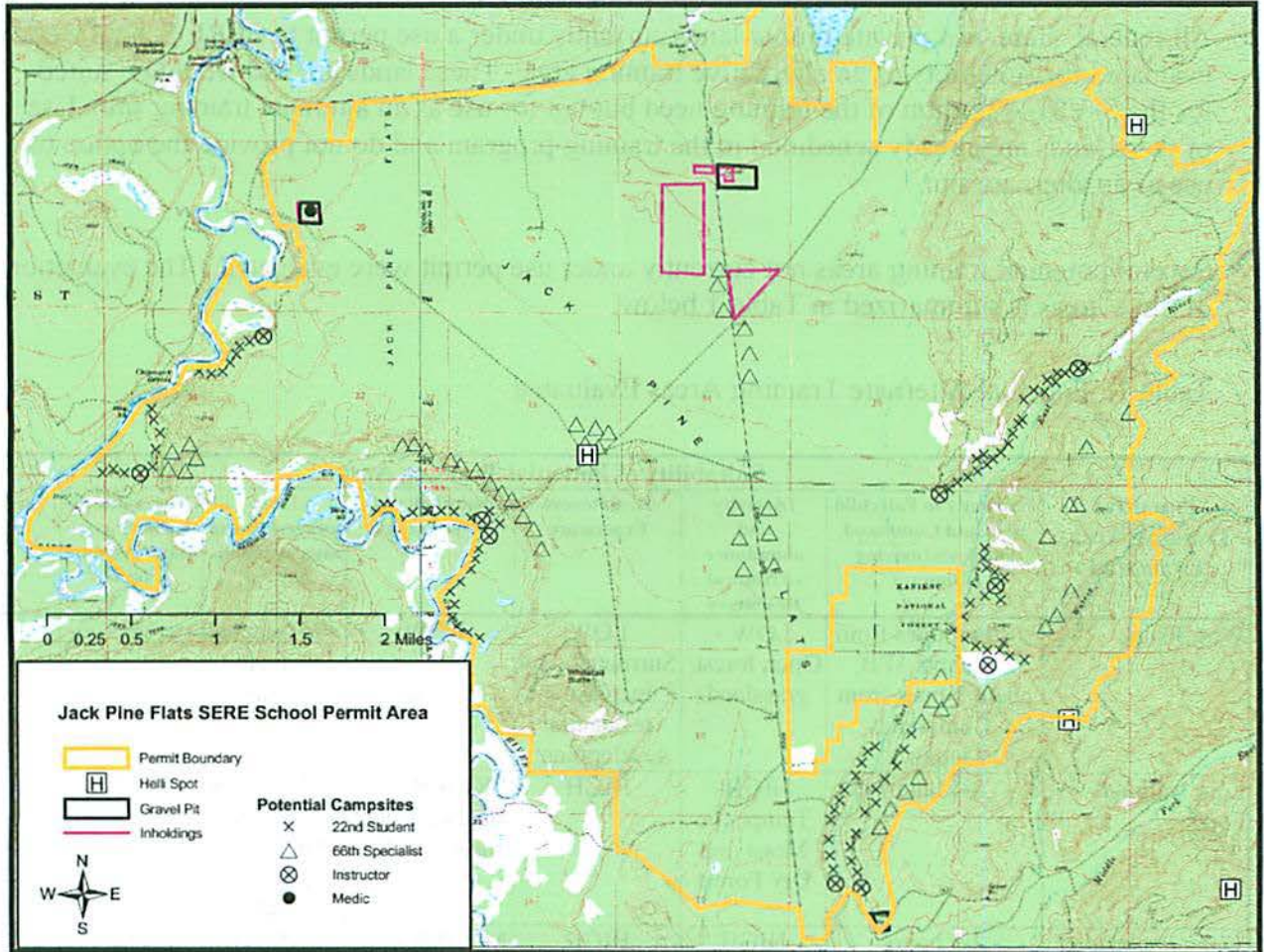
In a typical week, there are forty to eighty-five students in S-V80-A, and they use about twelve Static Camps and two Instructor Camps.

Elements common to both training courses are described further below:

- **Static Camps.** Camps support 2-10 students and consist of a pole structure supporting a parachute canopy, a twenty to thirty-foot open area for firecraft and central cooking fire, several demonstrations of survival shelters, and a cold weather emergency shelter. While in Static Camp, the students use covered pit latrines, located at least 300 feet from streams and lakes. Static Camps are typically located near a road, but they are not immediately adjacent to the road. When these camps are not in use, the parachute is removed and poles are stacked for re-use. If a Static Camp location is to be abandoned or not used for a prolonged period of time (one year or more) all structures are taken down and returned to a natural state, i.e. no trace.
- **Helicopter Exercises.** While at the Static Camp, the students learn to vector aircraft to their location. During the vector exercises a helicopter flies near the training location and occasionally hovers for short periods of time unless there is an emergency. Vectoring occurs twice for each S-V80-A class and for each student for the S-V81-A class and takes two to four hours to complete. One to three rescue demonstrations are conducted each week for the S-V80-A class and each student in the S-V81-A class practices rescue. Rescue consists of a low approach, hover, survivor pickup and departure.
- **Evasion Training.** Students are “harassed” by instructors simulating potential captors, using machine-gun simulators, which produce gun fire like noise, and vehicles to test the student’s skill at concealment, overland travel and “no-trace” living. Noise is restricted to short periods of time and not in the same area. This exercise also avoids riparian and meadow areas.

- **Treks and Mobile Camps.** Cross country travel is conducted in small groups of two to four students. Students erect suitable shelters using native materials and parachutes. Small cooking fires may be built. Since one of the objectives is to learn "no-trace" living, campsites are completely restored after each use.
- **Instructor Camps.** Instructor camps are located near Static Camps and are located immediately adjacent to open roads. They support six to ten instructors. The camps consist of tents or portable shelters, portable latrines, and parking for two to four vehicles.
- **Temporary Command Post.** A temporary Command Post (CP) is set up for summer operations that house the medics and lead instructors and stores necessary equipment. The CP is set up similar to an instructor camp. The CP must be in a large enough area for three to five vehicles, a camp trailer for the medics and a trailer for the additional supplies necessary to carry out the training in the forest for the week of training. CP locations are proposed to be located in existing openings such as gravel pit areas.
- **Operational Support.** Operational support includes a helicopter hanger, pad and fueling area and a large fleet of road maintenance equipment located approximately one hour from Jack Pine Flats area at the Ruby Creek and Tacoma Creek CPs on the Colville National Forest. Chainsaws, axes, shovels and many other small tools may also be used.
- **Road maintenance and/or improvement.** Heavy equipment is used on roads to maintain access to campsites and to minimize impact to landowner infrastructure. As needed, roads are graded, blown down trees are removed, ditches are cleared and reshaped, and culverts are cleaned, installed or replaced.
- **Procurement of Sustenance.** Local fauna and flora are collected during demonstrations of sustenance procurement. SERE School maintains a "take" permit from the IDFG that allows the taking of game and fish using specific limited primitive methods. Students are taught the methods of preparing snares for game and fishing equipment using materials in their survival vest. Game taken in the course of training is predominately squirrels and rabbits, with an occasional larger animal. Fish caught in the streams are typically small in size and number. No protected species are collected. Students are taught identification of protected species and how to avoid collection.
- **Student Transportation.** Students are transported to the training areas in two-wheel drive Air Force busses. In S-V81-A students are sometimes shuttled to remote training locations on tracked vehicles used on Forest Roads.

Figure 2. IDL Proposed Use Permit/Lease Area for SERE School Alternate Training



2.2 Alternatives Considered

2.2.1 No-Action Alternative

Even though the No-Action Alternative would not meet the purpose and need, consideration of the no-action is required by law. Evaluation of no-action provides a baseline for comparison. In this case, the No-Action Alternative would be that SERE School would not conduct S-V81-A training in the Jack Pine Flats area nor use the area as an alternate training site for the S-V80-A course.

Further investigation would be required by SERE School to locate another suitable alternate training area.

2.2.2 Alternatives Eliminated from Further Consideration

All federal, state, and private timber lands currently under a use permit to SERE School were evaluated for suitability as an alternative training area. These lands are and would be suited for the S-V81-A portion of the training need but not for use as an alternate training site. Use of these lands are already scheduled in the training program and do not provide the option of use as an alternate site.

Several potential training areas not currently under use permit were evaluated. The evaluation of these areas is summarized in Table 1 below.

Table 1. Potential Alternate Training Areas Evaluated

Potential Training Areas Evaluated	Suitability of Potential Training Area						Suitability Ranking
	Proximity to Fairchild AFB and Command Outposts (driving time)	Diversity and abundance of Natural Resources	Remoteness Experience	Suitability of Topography	Land ownership and area available.	Geographically Isolated from other Training Areas	
West Plains	< 20 minutes from Fairchild AFB; about 1 hour from Command Outposts	LOW - Open forest/ grassland.	LOW Surrounded by increasing residential development.	LOW; lacks diversity.	<2500 acres Private lands	YES	4 (Lacks remoteness and diversity)
Lolo National Forest	3-4 hours	HIGH- Temperate Moist and Dry Forest	HIGH	MODERATE; steepness may limit mobility	<2500 acres Federal lands and private lands.	YES	3 (Limited land area)
Idaho Panhandle/ Clearwater National Forest	2-3 hours	HIGH Temperate Moist and Dry Forest	HIGH	MODERATE; mostly steep which limits mobility and access.	>2500 acres potential; federal lands	YES	2 (Topography limitations)
Jack Pine Flats	2 hours from Fairchild AFB; < 1 hour from Command Outposts	HIGH Temperate Moist and Dry Forest	HIGH	HIGH; Offers both level and moderately sloping topography.	>2500 acres Idaho Department of Lands	YES	1

Lands to the south and west and near Fairchild AFB on the West Plains are under agricultural land use presently. These lands are privately owned. Residential development is on the increase in these areas which poses a long term sustainability risk. Topography is not diverse. The vegetation cover is not representative of temperate forest nor does it provide a diversity of cover type.

The training area in western Montana comprises 1500 acres on the Lolo National Forest and 51.9 acres on private land. It was determined that the small size of the area, steepness and

distance from infrastructure support for training was unsuitable for the level of training needs required.

Federal lands to the east of Fairchild AFB in Idaho on the Idaho Panhandle National Forests and Clearwater National Forests were found to be unsuited because of steep topography and limited road access.

2.3 Mitigation Measures and Monitoring Procedures

The following mitigation measures have been identified by the Air Force and the State of Idaho agencies and are included in the proposed action.

Idaho Department of Fish and Game (IDFG)

1. Fish and wildlife may be taken only by SERE School students and instructors, and may only be used for human consumption.
2. Only species identified on the IDFG permit are allowed for collection. Collection of Federal Endangered or Threatened species or other protected species will not be allowed.
3. Training will be provided such that bull trout and westslope cutthroat trout can be identified (and collection avoided) in the field.
4. The permit is for a five year term with renewal based on performance and training needs.
5. An annual report of species, number taken, and date and location of collection will be submitted to IDFG.
6. SERE training will not be conducted during modern rifle hunting season.
7. Notice will be given IDFG prior to exercising the collection permit as follows: four weeks prior for course S-V81-A and two years prior for course S-V80-A.
8. Collection permit may be suspended or revoked if terms of permit are violated.
9. No use of explosives or gill nets in the collection of fish.

Idaho Department of Lands (IDL) and Air Force Operating Instruction OI 60-1-A

1. An annual operation plan meeting will be scheduled at least one month before training.

2. Training notices will be posted at information boards in the local area two weeks prior to activities, along with notice in the local paper and radio station.
3. Camps will be located at least three hundred feet from the edge of perennial streams and wetlands greater than one acre and at least fifty feet from seasonal streams and significant dispersed recreation sites during peak use periods.
4. Use natural vegetation to screen temporary structures such as quad pods, parachutes, and latrines from main roads.
5. Latrines will meet Bonner County planning regulations. Chemical toilet locations will be coordinated with IDL.
6. All food items will be stored or secured in containers resistant to intrusion by bears and other wildlife. Personnel on the trail will either remain with food items at all times or suspend food items at least ten feet from ground level and four feet from the trunk of a tree.
7. Smoke rack fires and campfires will be constructed with a cleared fire circle a minimum of three feet distance from fire in all directions and shall not exceed twenty feet distance from the fire. Limited use of hardwood limbs for smoke rack fires to less than three inches in diameter. No fires will be constructed within three hundred feet of perennial streams and wetlands and 50 feet from seasonal streams. No fires are to be left unattended and will be completely extinguished prior to scattering ashes.
8. Long term fire circles will be restored to rehabilitate long term site productivity as directed by IDL.
9. Federal or State Fire Officials may issue special restrictions on the use of fires during periods of very high fire danger. During hazardous conditions, fires outside of static camps should be limited in number and size and then immediately extinguished.
10. Use of Cavanaugh Bay airstrip will be coordinated with the local airstrip manager prior to use. Helicopter land areas will be in gravel pits or in other cleared areas. All other landing zones require prior approval by IDL.
11. Felling of live trees is limited to less than seven inches DBH. Stump will be no higher than six inches and cut parallel to the ground. Prior approval of location is required annually during the plan of operations meeting.
12. Standing dead trees less than ten inches DBH may be cut in designated areas. Preference trees are lodgepole pine. Portions of down logs that exceed ten inches in diameter will remain uncut for nutrient cycling and animal uses and used for no other training purpose.

13. No trees shall be cut within three hundred of perennial streams and wetlands and fifty feet from seasonal streams and wetlands.
14. No plants on the U.S. Forest Service Region 6 Sensitive Species List or listed as threatened, endangered or proposed shall be collected.
15. Suitable habitat exists for Canada lynx, grizzly bear, and gray wolf. Sightings will be reported to IDL.
16. Avoid catching bull trout and cutthroat trout. If these trout are caught, immediately release live fish, however preserve the specimen if no chance of survival and contact IDL.
17. Use of vehicles and ATV's will be on established roads and/or approved skid trails. All damage to roads and/or skid trails will be repaired. IDL will pre-approve all plowing and opening of closed roads and/or skid trails.
18. The spread of noxious weeds will be avoided. Any off-road equipment will be free of soil, seeds, vegetation matter or other debris that could contain or hold seeds prior to being moved into the operational area. Any straw bales used will be inspected and certified "weed free". Vehicles will be checked for weed seeds when leaving heavily infested areas.
19. Snow plowing of roads requires prior approval. If plowing of groomed snowmobile routes is requested, an Air Force representative may be required to participate in snowmobile groomer meetings as requested by IDL.
20. Garbage service will be coordinated with Bonner County. All campsites will be left in a clean, sanitary manner.
21. Simulated gunfire is not allowed during high fire danger without prior approval of the fire warden.
22. Simulated noise makers will avoid spring nesting and fawning areas (wetlands and riparian areas). All noise producing devices will be used in a manner as to avoid continual noise in the same vicinity over prolonged periods of time. The intent is to keep the noise "moving", allowing any disturbed wildlife to return to the area after the noise has subsided.
23. Notice will be given to local campers or forest users prior to use of simulated gunfire or loud noisemakers.

Chapter 3: Affected Environment and Comparison of Environmental Consequences

This chapter combines the chapters of Affected Environment and Environmental Consequences typically found as separate chapters in older EA formats. This new format provides better accessibility for the reader to the effects analysis compared to the existing conditions of the environment as well as streamlines the EA document.

3.1 Introduction and General Setting

The analysis area is defined as the area within the proposed permit/lease boundary (Figure 2). A larger area or region of influence (ROI) is included in the analysis when necessary to address affects on mobile resources such as water, air, and wildlife.

The analysis area has a temperate diverse forest supported by a climate with four seasons. Elevation ranges from about 2400 feet to about 4000 feet. Total snowfall ranges from 6-10 feet at the lower elevations and much higher with increasing elevation. Annual precipitation is about 31 inches. Summers are typically hot and dry with temperatures ranging from 60-90 degrees Fahrenheit.

The proposed permit/lease area is managed primarily for timber production by IDL. Several in-holdings exist within the area including gravel pits managed by Bonner County, small blocks owned privately, U.S. Forest Service Priest River Experimental Research Forest, and the Coolin Sewer. Most of the lands adjacent to the analysis area and within the ROI are federal lands managed for multiple purposes by the U.S. Forest Service, Idaho Panhandle National Forests.

The closest communities are Coolin, Idaho and Priest River, Idaho with a combined population of less than about 2500 year round residents. Major industries are affiliated with the timber industry. The area is also known for high quality recreation including snowmobiling, fishing, boating, and hiking. The Priest Lake State Park is about 15 miles north of the proposed permit/lease area.

Topography of the analysis area is depicted in Figure 2. Eighty percent of the area is a nearly flat-lying plain remnant of past glacial history. Old riverine terraces create relief benches along the western boundary associated with historic levels of the Priest River. Steep mountain slopes rise from the plain along the eastern portion of the analysis area.

3.2 Air Quality

The analysis area is the proposed permit/lease area and ROI as defined by the prevailing air movement toward other populated areas.

Affected Environment

The ROI is within the Eastern Washington-Northern Idaho Interstate Air Quality Control Region. Of the six criteria pollutants identified by the U.S. Environmental Protection Agency (EPA), two are of interest in the region, specifically carbon dioxide (CO) and particulate matter (PM). Motor vehicles are the largest contributors to CO. PM comes from a variety of sources including dust from unpaved and paved roadways, construction activities, gas and diesel engines, and indoor/outdoor burning.

The closest areas that have been identified as of concern within the Control Region are: 1) Spokane, WA for both CO and PM, at least 60 miles to the south and west and 2) Sandpoint, ID, a non-attainment area for PM (IDEQ 2008) approximately 30 miles to the east of the analysis area.

No monitoring takes place within or adjacent to the analysis area and no concerns have been raised for the area near or within Jack Pine Flats. Sources of air pollution for the area are likely from vehicular traffic on unpaved roads, diesel equipment operation associated with timber harvest and log haul, slash burning, 2 cycle recreational vehicles, and use of wood stoves. These activities are relatively low level in comparison to concern areas identified above; and are temporary, dispersed, and seasonal in nature. This serves to reduce total pollution load at any one time. Jack Pine Flats lies within a river valley between two mountain ranges and air stagnation is experienced during temperature inversions during fall and winter months. In most cases, air stagnation events are short duration and for most of the year, daily topographic winds and westerly maritime storms create favorable conditions for atmospheric mixing at the ground surface and aloft.

Effects Analysis

No-Action Alternative

No change in air quality will occur as a result of SERE School activities.

Proposed Action Alternative

The primary impacts from proposed activities are from campfire smoke and dust from vehicular travel on unpaved roads. The relative amount of contribution to air pollution will be equivalent to recreational use of the area.

On a routine basis, the S-V81-A course will have small campfires at six to ten campsites for cooking and demonstration purposes for a two week period, two to four times over the course of a year. The number of campsites may increase to fifteen in 2010. Vehicular traffic includes transportation of students to static camps by one or two gas or diesel powered buses; limited use of heavy equipment during road maintenance, limited use of off road vehicles, and light truck or van traffic in support of training activities.

In the unusual event that S-V80-A course must move their operations to Jack Pine Flats, the amount and duration of campfires will increase by thirteen additional camps for a five day

period every week of the year. Vehicular traffic includes transportation of students by two to four gas/diesel-powered buses, limited use of heavy equipment during road maintenance, limited use of off-road vehicles, and light truck or van traffic in support of training activities.

Indirect/Direct Effects:

Activities associated with the S-V81-A course will have a local and temporary impact on air quality similar to existing recreational activities in small designated campgrounds and parks. The number of campsites and frequency and amount of vehicular activity is relatively small relative to the size of the area. Natural air flow patterns should disperse smoke and dust resulting in short duration effects on air quality.

The S-V80-A course will produce a daily source of smoke, five days a week throughout the year. Impacts will be local and temporary in most cases similar to recreational activities in high use year-round designated campgrounds and parks. Bus transportation will create short periods of dust similar to log haul traffic. Natural air flow patterns should disperse smoke and dust most times with the exception of during air stagnation periods in the fall and winter months. The number of campsites and frequency and amount of vehicular activity is relatively small relative to the size of the area.

Cumulative Effects:

Currently, smoke from wood stoves and/or slash burning during air stagnation events usually in the fall through winter lowers air quality for several days before weather patterns disperse air to the upper atmosphere. SERE School campfires, vehicle emissions, and dust from traffic on unpaved road will contribute to suspended particulates and carbon dioxide to lowered air quality during these days. The contribution of pollutants by SERE School activities is relatively small in comparison to other sources. The additional contribution is anticipated to be similar to fluctuations in recreational use or logging activities of the area. Presently the area has not been identified by IDEQ or EPA as an area for concern and there are no restrictions placed upon any source at this time. Natural air flow patterns should limit significant decreases in air quality to very local and short duration events.

The potential for contribution to further degradation of air quality in the two areas identified as areas of concern for air quality attainment, Spokane and Sandpoint is low. Spokane is "upwind" from prevailing wind patterns and 50 miles away. Sandpoint is downwind but separated by mountainous terrain that should serve to move particulates aloft.

From a larger regional perspective, the proposed activity is a zero net increase in emissions to the region at large. The proposed action is a transfer of existing activities on the Colville National Forest to Jack Pine Flats.

3.3 Noise

The analysis area is the proposed permit/lease area and is expanded to include ROI as applicable to private lands immediately adjacent to the proposed permit/lease boundary. Sustained noise levels sufficient to protect public health and welfare are identified as <55 dB

in outdoor settings by Environmental Protection Agency (EPA 1974). No regulatory statute has been identified by the state of Idaho.

Affected Environment

The area is relatively remote and existing noise levels are low. Elevated levels associated with logging operations, gravel excavation operations, concentrated recreation activities, and general traffic may occur in short duration or in transient forms. The listener may experience a constant but diffuse "low hum" of heavy equipment operation or aircraft in the distance or wind moving through the forest canopy. For those residing or recreating in the area, noise levels are anticipated to be below 55dB with the exception of those immediately adjacent to the source of some activities. Noise producing activities in the area presently are listed below:

- Occasional small aircraft either conducting over flight or preparing to land at Cavanaugh Bay landing strip at Priest Lake;
- Training flights and landing of military helicopters at Cavanaugh Bay landing strip;
- Occasional heavy equipment operation at gravel pits and during road maintenance;
- Occasional harvester equipment operation and chainsaws associated with timber harvest and firewood gathering;
- Snowmobiles during winter months;
- Private and commercial vehicles traveling on unpaved and paved roads; and
- Human voices and barking dogs associated with concentrated and dispersed recreation and private dwellings.
- Gun fire during hunting season.

Effects Analysis

No-Action Alternative

There would be no change in noise levels, duration or distribution with this alternative.

Proposed Action Alternative

Noise producing activities associated with the proposed action are: 1) occasional and local operation of helicopter during training simulation, 2) simulated machine gun fire and elevated human voices during the 3-4 hour evasion training exercise, 3) motor vehicle and occasional off road vehicle traffic, and 4) human voices at camp sites.

Indirect/Direct Effects:

Of the four noise producing activities, helicopter operation and evasion training exercises are the two activities likely to produce sounds that are either in addition to the present noise condition or introduce a new sound to the area. Both of these activities are short duration but would occur routinely with each training class. The evasion training simulation usually lasts

no more than 3-4 hours per training class and will occur solely on state lands. Attempts are made to change locations of this training with each class so that the activity is not concentrated in one area. This minimizes disturbance to wildlife and to those using public lands.

Helicopter over-flight and landings at Cavanaugh Bay associated with other military exercises occur already routinely. The addition of flights from SERE School will increase duration and frequency as well as disperse flight activity over what is presently occurring. The noise is transient lasting for minutes while the helicopter is in the area. From previous experience on the Colville National Forest, occasional complaints from private landowners have been received for helicopter noise associated with SERE School activities. SERE School has responded to these complaints by adjusting flight plans to minimize disturbance over and near private lands. If conflicts should occur, the proposed permit/lease area is large enough to accommodate flight plan adjustments when necessary.

The other two activities are similar to the already occurring noise in the area and thus, these activities would not be a noticeable change in noise level. Proposed campsites and areas that will be used for training are located on Idaho state lands and well away from in-holding areas or adjacent lands under private ownership. This reduces the chance of residential landowners being affected by noise created by SERE School activities.

Cumulative Effects:

Sounds from all present and proposed activities are transient and of short duration and occur in a forested setting which diffuses intensity of noise. All these factors serve to minimize the chance of elevated noise at levels that pose adverse effects to public health. The proposed activities will increase the frequency of noise from helicopter operation and introduce a new noise from machine gun fire. Again, the noise is short duration and the forest vegetation will insulate sounds from traveling any significant distance. New and more frequent sounds at close proximity may be viewed as a nuisance to those seeking isolation and quiet in public lands which may cause displacement of these kinds of activities to the adjacent state parks or federal lands.

3.4 Water Resources

The analysis area is the proposed permit/lease area and includes a ROI downstream from proposed permit/lease area.

Affected Environment

The analysis area is within the Priest River watershed. The western boundary is along the mainstem Priest River. Lost Creek, North Fork of East River, and Waters Creek are important tributaries to the Priest River flowing through the analysis area.

The climate is dominated in the summer by maritime influence from the Pacific Ocean and in the winter by arctic influence from Canada. Annual precipitation is about 32 inches at JPF with increasing amounts with elevation. Average snow depth ranges from 2 to 4 feet. Snow accumulation is modified by lake effects from nearby Priest Lake and orographic effects typical of mountainous regions.

Beneficial Uses: Beneficial uses attributed to streams in the area are primarily fish, wildlife habitat, recreation, and minor use for livestock. The watershed is a priority watershed for bull trout and western cutthroat trout, species of concern listed under the Endangered Species Act and/or by state of Idaho. The Priest River flows to the Pend Oreille and Columbia Rivers where hydropower production and irrigation is an additional beneficial use.

Water Quality. All tributary streams within the proposed permit/lease boundary are classified by Idaho DEQ as "supportive" to beneficial uses or meeting water quality standards for beneficial uses. The mainstem Priest River, the Middle Fork East River, and East River downstream from the confluence of Waters, Lost and North Fork East River have been classified as "impaired waters" or not "supportive" to beneficial uses (IDEQ 1998, 2002, 2008). Elevated water temperature and low summer water flow have been identified as the impairment elements.

Wetlands: Forested wetlands, ranging from less than one acre to over five acres occur within the analysis area. They are most commonly associated with tributary streams, and abandoned channels of the Priest River.

Hydrologic Regime: The regime is snowpack-dominated with peak flows occurring in the spring from snow melt and spring rains. Peak flows generally are in April through June. Streams within the analysis area are stable with well vegetated stream banks and/or rocky substrate. Upper stream reaches above Jack Pine Flats are high gradient with capability to transport sediment rapidly. Stream reaches flowing through Jack Pine Flats are moderate to low gradient and have an affinity for sediment deposition.

Effects Analysis

No-Action Alternative

No change in effects to water quality, water quantity or aquatic habitat will result from this alternative.

Proposed Action Alternative

Indirect/Direct Effects:

No activities associated with the proposed action have the potential to affect water quantity. Soil compaction in campsites and on access trails may increase peak runoff from these areas and if these activities occur near streams will increase potential for sediment delivery to water courses and associated aquatic habitat. Air Force Operating Instruction OI-60-1 requires that all campsites are located at least 300 feet from perennial streams, lakes, and wetlands greater than one acre and 50 feet from seasonal streams and wetlands less than one acre. This requirement will minimize potential for sediment delivery to streams. Potential for water contamination from latrines will also be minimized by location and design as specified by Air Force Operating Instruction OI-60-1 and are required to meet county standards. Removal of standing dead trees or live trees will be restricted to similar distance as camp sites and size

limitations that will conserve wood recruitment potential for riparian stability and aquatic habitat.

The proposed activities with the highest potential for effects to water quality will be 1) road maintenance and/or improvement with heavy equipment and 2) use of off road vehicles. OI-60-1 requires that all use of vehicles and all-terrain vehicles be on established roads and or approved skid trails. Any road improvement or snow removal will be conducted only with prior approval from IDL. This requirement will reduce the potential for these activities to take place in a manner that will adversely affect water quality or aquatic habitat.

Potential for sediment delivery from vehicular traffic using open roads during the wet season increases with more traffic. SERE School transportation will add routine bus transportation of students and daily use of light vehicles for support and training activities. About eighty percent of the analysis area is nearly flat with roads located well away from water courses. In other words, most of the roads in the analysis area have a low potential for sediment delivery to streams. The road segment which cross the North Fork of East River and segments that parallel this stream with no more than a 100 foot buffer are high risk areas for sediment delivery especially during wet road conditions or during road maintenance. Monitoring for sediment delivery and employment of sediment catchment devices may be necessary to reduce potential for increases in sediment to streams in these areas.

Cumulative Effects:

If both S-V80-A and S-V81-A courses are held at Jack Pine Flats there is a potential for double the number of existing recreational campsites in the area. The percent of area occupied by SERE School campsites is calculated to be less than 1 percent of the area. Including the existing recreational sites, the area would be less than 2 percent. This percent is well below a level that will increase runoff or increases in peak flow. Locating campsites and latrines well away from watercourses will reduce the potential for sediment delivery or waste pollution to streams, short term and long term. OI-60-1 requires restoration of unused campsites and removal of latrines which will serve to minimize any long term effects.

The proposed activities with the highest potential for cumulative effects to water quality will be 1) road maintenance and/or improvement with heavy equipment and 2) use of off road vehicles. To reduce the potential for adverse long term impacts, all locations and schedules of potentially ground disturbing activities will be coordinated with IDL. These activities will be conducted in consort with IDL activities using currently accepted best management practices and conservation measures. Both, Air Force Instruction OI-60-1 and the IDL proposed permit/lease will require this coordination and prior approval for these activities.

Potential for sediment delivery from vehicular traffic using open roads during the wet season increases with more traffic. SERE School transportation will add routine bus transportation of students and daily use of light vehicles for support and training activities to the present traffic levels both in intensity and duration. About eighty percent of the analysis area is nearly flat with roads located well away from water courses and are low risk for sediment delivery. Other secondary roads located on steeper terrain are gated and access will be regulated by IDL minimizing potential effects of travel during wet periods.

3.5 Geologic Resources

The analysis area is the proposed permit/lease area.

Affected Environment

The majority of the proposed permit/lease area lies on a nearly flat plain bounded by the mainstem Priest River to the west and steep, complex mountains rising along the east. Topography and soils are the result of tectonics causing bedrock alteration and uplift known as the Priest River complex and subsequent glacial erosion and deposition in the Pleistocene Era. Soil surface layers are influenced by wind blown volcanic ash and loess. Soil substrates in the mountainous portion of the analysis area are either developed from partially metamorphose Pre-Cambrian sedimentary bedrock, Cretaceous granites, Eocene intrusive igneous rocks, and along fault lines, highly altered rock. Soil substrates in the flat plain area are complex layers of glacial outwash deposits.

Soil surface layers are silt loams to fine sandy loams; have high nutrient holding and water holding capacity, easily compacted, and easily eroded when vegetation is completely removed. If soils remain vegetated, erosion potential of surface layers is greatly reduced. Erosion increases with slope steepness, thus soils on the plain have a lower potential for erosion than soils in the mountainous terrain of the analysis area. Both surface and substrate soils (with the exception of granitic bedrocks) have fine soil particles that are readily transported in high energy streams and are deposited in streambeds of low energy streams which can degrade aquatic habitat. Slope instability is not common and is mostly associated with fault zones and fault altered bedrock in the steeper terrain and high terraces of outwash materials actively being undercut by streams or oversteepened by roads. Three major soils are mapped the area and are as follows: Bonner Soils in the flat plain area; Vay and Ardtoo Soils in the mountainous areas; and wetland soils in abandoned channels of Priest River and small riparian areas along tributary streams (NRCS 2008).

Effects Analysis

No-Action Alternative

No change in soils or related resources will result from this alternative.

Proposed Action Alternative

Indirect/Direct Effects:

Of the proposed activities, static camps and instructor camps are activities that have the most potential for impacts on the soil resource. Compaction and denudation from foot traffic and denudation for a fire ring buffer is associated with campsites. Over time the area around the camps will become devoid of small wood as a result of firewood gathering. Overall, the impact appears similar to that which occurs at moderate to heavily used dispersed recreation sites.

Studies conducted for the U.S. Forest Service indicate that "Soil impacts from recreation are generally considered "severe" but spatially limited and of limited significance at the landscape scale" (Marion and Cole 1996 and Cole 1994 in USFS 2000). SERE School campsites are typically about 50 feet in diameter or about 2000 square feet. It is calculated that the S-V81-A course will impact between 12,000 - 22,000 square feet given 6-11 campsites plus parking. After the year 2010, class size increases to five additional campsites which will increase the impact area to about 32,000 square feet. The impact area is less than .6 acre. The S-V80-A course requiring about 14 camp sites plus parking for four vehicles will impact about .6 acres. The total potential impact for both training operations is less than .01 percent of the total analysis area.

Rehabilitation of compacted soils is contingent on break up from frost and/or roots of vegetation. Research in the eastern United States found that unused recreational sites take up to 6 years for revegetation and the beginnings of recovery (Cole 1978 in Reid 1993).

Cumulative Effects:

If both S-V80-A and S-V81-A courses are held at Jack Pine there is a potential for double the number of existing recreational campsites in the area. The percent of area occupied by SERE School campsites is calculated to be less than 1 percent of the area. Including the existing recreational sites, the impact area would be less than 2 percent. Other existing land uses that degrade soils in the analysis area are gravel pit areas and roads. These areas occupy about 4 - 5 percent of the area.

Research has demonstrated that detrimental conditions from compaction in campsites can be reversed with revegetation in about 6 years (Cole 1978 in Reid 1993). Thus, impacts to soil quality from SERE School operations are not considered long term or irreversible.

3.6 Cultural Resources

The National Historic Preservation Act of 1966 and Executive Order 11593 require that historic and cultural properties be inventoried to identify heritage resources and to protect these properties from adverse impacts. These resources include prehistoric and historic archaeological sites, buildings, structures, districts, artifacts, objects, or any other physical evidence of human activity considered important to a culture, subculture, or community for scientific, traditional, or religious purposes.

Affected Environment

A review of Idaho State Preservation Office internet database has identified two historic structures in or near the community of Coolin, Idaho and north of the proposed permit/lease area and outside the ROI.

Early history is tied to the Native American Tribes who lived and traveled through the area, mostly the Coeur d'Alene, Blackfeet, and Salish-Kootenai Nations. The first Euro-American movement brought exploration and fur traders to the area in the 1700s. The area remained sparsely populated by fur trappers and Native American Tribes for many years. Historic

structures north of the proposed permit/lease area are a remnant of this era. The Priest River Experiment Station was established in 1911 and continues to maintain an in-holding within the proposed permit/lease area. The Civil Conservation Corps established a year-round camp at the Experiment Station and conducted operations in the area during the 1930's. No sites associated with these historic uses were identified within the analysis area during the literature search. No formal surveys have been conducted in support of this environmental assessment.

Effects Analysis

No-Action Alternative

No change in the cultural resource will result from this alternative.

Proposed Action Alternative

Indirect/Direct Effects:

No historic or cultural resources requiring conservation or protection have been identified within the proposed permit/lease area. The analysis area has not been completely surveyed so the potential remains for SERE School activities to encounter cultural resource sites not yet identified. Air Force Operating Instructions OI-60-1 require SERE School operations to protect sites if they should be discovered. OI-60-1 states that SERE School will 1) revise activities to avoid any disturbance or potential for damage if they encounter sites that appear to have historic or archeological qualities and to contact the landowner or Forest Liaison Officer for determination of significance of the site; and 2) not enter known historical structures nor remove artifacts. OI-60-1 explicitly states that no training activities will occur within historic resource sites. In addition, annual coordination meetings with the landowner, IDL, will inform SERE School of new discoveries and provide for adjustment as necessary.

Given these restrictions and management requirements, there is slight to no potential for adverse impacts to cultural resources.

Cumulative Effects:

Given restrictions and management requirements as stated above, there is slight to no potential for adverse impacts to cultural resources.

3.7 Biological Resources

The proposed permit/lease area encompasses diverse terrain that supports open, dry forests to moist, closed forests. Structure and age of forests range from early successional/stand initiation stages to small areas of old growth. Numerous openings (natural and man-made), wetlands, riparian areas, dry meadow, shrublands, and stands of deciduous trees distributed across the area provide important plant and habitat diversity.

3.7.1 Fish and Wildlife

Affected Environment

The analysis area has highly diverse habitat ranging from steep mountain slopes to flat plain which include riverine, riparian, wetland meadows, coniferous forest harvest units of various maturity, stringers of mature coniferous forest. These habitats provide a mosaic of security, forage, winter/summer range, and rearing habitat for a diversity of fish and wildlife species. The area is adjacent to large tracts of U.S. Forest Service lands managed for multiple use, wildlife habitat, and wilderness.

State lands in the Jack Pine Flats area have a relatively high road density and a predominance of young forest structure. Timber harvest units form plantation openings in a 40 acre patchwork pattern on the "flats" and form larger openings of young forest in the upland areas of the analysis area. Stringers of mature forest exist along tributary streams but are highly fragmented with low connectivity value to the mainstem Priest River. This array of vegetation most likely limits use of the area by old-growth dependent species or those species requiring large areas of isolated habitat. The adjoining U.S. Forest Service lands offer more remote and less fragmented habitat. IDFG has recorded observations in the Jack Pine Flats area of wildlife species including several listed and protected under the Endangered Species Act. Presence of these species is explained more by the area's adjacency to suitable habitat not that Jack Pine Flats contains suitable habitat. A rich riparian habitat structure exists along the Priest River some of which is inaccessible by road. Tributary streams have older more mature forest and likely provided travel corridors for some species.

Open road density is high on the "flats" and adds to disturbance levels and the fragmented nature of this area. Road density is high in the upland areas but many of these roads are gated and travel is limited to administrative use which reduces wildlife disturbance.

Tributary streams and the mainstem of Priest River support a variety of aquatic species dependent upon cool waters with excellent water quality. The mainstem Priest River and North Fork East River have been rated "impaired" by IDEQ under the Clean Water Act Section 303(d) for elevated summer temperatures and low summer flows. The Priest River Basin TMDL Study also suggests that sediment loads in the mainstem and lower reaches of the North Fork and Middle Fork of East River may be a factor in suppression of cutthroat trout (IDEQ 2001).

There are four wildlife species and one fish species known to occur within the proposed permit/lease area that are listed as threatened or endangered under the Endangered Species Act. These species are bald eagle, Canada lynx, grizzly bear, grey wolf, and bull trout. With the exception of bald eagle and bull trout, habitats within the proposed permit/lease area are not suitable for full support of these species, particularly reproduction and are not considered critical to sustainability of these species. Most likely these species have been observed during seasonal travel through the area in search of food or to move on to more suitable habitat. Suitable nesting, perch, and foraging habitat exists for bald eagle along the Priest River as well as to the north at Priest Lake and to the south along the Pend Oreille River. No nests have

been observed in the Jack Pine Flats area by the landowner or recorded by IDFG to date but individuals have been observed soaring in the area. The Bull Trout Recovery Plan (USFWS 2004) identifies the Priest River Basin as a primary core area for recovery. The East River, a tributary of Priest River, supports the only known lake outlet spawner in Idaho. They spend their adult life in Lake Pend Oreille, but utilize the East River drainage for spawning and rearing.

Fishing is managed to conserve native fisheries using size limits that basically is a catch and release requirement for cutthroat. There is no fishing for bull trout. And liberal harvest limits on brook trout, a non-native fish, support reduction of competition with native fish. IDFG also manages hunting seasons for elk, deer, black bear, mountain lion, and moose in the area (IDFG 2008).

Evaluation of effects for every species existing in the area is not warranted with respect to the relative potential impact of the proposed action. Hence, a representative species approach has been used in this evaluation. The evaluation addresses, specifically, species that are under legal protection or those recognized by the state of Idaho or adjacent U.S. Forest Service to be at risk for decline. Other species are grouped by similarity in habitat requirements with one species identified as an indicator species for the group. Species listed in Table 2 below are included in this assessment's evaluation.

Table 2. Animal Species of Special Concern

Species	Status
Bull Trout	Federally Threatened
Gray Wolf	Federally Endangered
Canada Lynx	Federally Threatened
Bald Eagle	Federally Threatened
Grizzly Bear	Federally Endangered
Peregrine Falcon	USFS Sensitive/IDFG Species of Concern
California Wolverine	USFS Sensitive/IDFG Species of Concern
Pacific Western Big-eared Bat	USFS Sensitive/IDFG Species of Concern
Big Game: Elk/Deer	Colville NF Indicator Species/IDFG Species of Concern
Northern Three-toed Woodpecker, Pileated Woodpecker, and Other Woodpeckers	Colville NF Indicator Species/IDFG Species of Concern
Barred Owl/Fammulated Owl	Colville NF Indicator Species/IDFG Species of Concern
American Marten/Fisher	Colville NF Indicator Species/IDFG Species of Concern
Harlequin Duck/Other waterfowl	Colville NF Indicator Species/IDFG Species of Concern
Westslope Cutthroat	USFS Sensitive Species/IDFG Species of Concern

Effects Analysis

No-Action Alternative

No change in effects to fish and wildlife habitat or to their sustainability will result from this alternative.

Proposed Action Alternative

Indirect/Direct/Cumulative Effects:

In general, the U.S. Air Force Operating Instructions OI-60-1 limit or prohibit activities in riparian and wetland areas, which are important to many species. Limits on size, type, and amount of vegetation material minimize the potential for impact to species that are dependent upon trees for nesting or for species dependent upon security cover. Noise making activities are limited in duration and are not to be located near riparian areas or wetlands. Helicopter landings and hovering are limited to open areas and not in riparian or wetlands. Location of activities is supervised by the landowner, IDL and/or IDFG through coordination meetings, reporting functions, and permits to minimize impacts. A Forest Liaison Officer serves in the role of environmental educator and monitor to assure conservation practices are understood and implemented effectively. All of these measures serve to minimize potential impacts to wildlife.

SERE School has been in operation in a similar environmental setting on the Colville National Forest since 1965 and the U.S. Forest Service recently reviewed environmental impacts in an Environmental Assessment (USFS 2000). They found that no adverse impacts on fish or wildlife have resulted to date and have anticipated that no adverse impacts will result from continuing SERE School operations on the Colville National Forest.

SERE School's proposed activities have a potential for direct effect through harvest of fish and wildlife or their forage/prey during its demonstration and practice of securing food. IDFG minimizes this potential by issuance of a "game take" permit through 2010. This permit limits the number and kind of animals that can be killed. The IDFG permit is on file at Asset Management Flight, Fairchild AFB, Spokane, WA. Monitoring by IDFG by both field observation and through a required annual report of animals killed will be conducted as well.

Federally-listed Threatened/Endangered/Candidate Species

Informal consultation with USFWS for the five species protected under the Endangered Species Act was completed in November 2008. USFWS has concurred with the finding that SERE School activities "may affect, but is unlikely to adversely affect" or have "no significant affect" on these species. This determination is based upon either that the species is not dependent on the habitat within the proposed permit/lease area for their survival or that currently proposed mitigation measures can be implemented effectively to protect the survival of these species. A summary of the evaluation is presented below. The full evaluation is in the project file at the Asset Management Flight, Fairchild AFB. Correspondence with USFWS is in the appendix of this document.

Bull Trout (Status: Federally Threatened)

Bull trout is known to occur in the mainstem Priest River and in most tributaries. This species is dependent on cold, pristine waters, connectivity between stream segments, deep pools, and clean gravels for spawning. The draft Bull Trout Recovery Plan (USFWS 2004) recommends focus on restoring connectivity, controlling sedimentation, restricting harvest, and maintaining adequate stream flow for both temperature and physical habitat maintenance.

SERE School activities pose potential for effects from several activities. Acceleration of sedimentation can be caused by snow clearing and/or maintenance of the road surface when conducted adjacent to streams and at road crossings of streams. Sedimentation risk by SERE School is mitigated by the fact that these activities are infrequent and dispersed and will be conducted under the supervision of IDL. During these activities, appropriate best management practices will be applied as required by IDL.

SERE School's removal of trees for firewood and temporary structures will not effect wood recruitment or shade for temperature moderation to streams. Air Force Operation Instruction OI-60-1 limits any tree utilization within 300 feet of a perennial stream and 50 feet of season streams and wetlands.

Degradation of water quality from improper sanitation or placement of camps too close to streams is not likely but could occur during mobility exercises. The impact from mobility exercises would be no more than current levels by public recreation. OI-60-1 requires camps to be located at least 300 feet from perennial streams and 50 feet from seasonal streams. Latrines will meet Bonner County planning regulations for pit latrines. Chemical toilet locations will be coordinated with IDL and removed at the end of the operation season. This greatly reduces the risk.

Unintended harvest of bull trout during training could occur which may effect but not adversely effect bull trout. No collection of bull trout is permitted by the IDFG collection permit. The potential for unintended catch is similar to the general fishing public and possibly somewhat less. Fishing activities by SERE School are limited and are conducted under the supervision of instructors trained on identification of endangered/threatened/candidate species. Pictures and identification instruction are also included in the OI-60-1 appendix for immediate reference.

The existing "impaired" water quality and low flows (IDEQ 2001) have a more substantial negative effect and restricting harvest has a more substantial positive effect on bull trout reproduction and survival over any other factor. Hence, the proposed action will have a "no net" change from current conditions for bull trout temporally or spatially.

Grey Wolf (Status: Federally Endangered)

Wolf sightings in the Priest River area have been reported to IDFG. Most sightings are of single individuals which indicate transient use. At present, there are no known wolf dens or rendezvous sites in the Jack Pine Flats area (Terra-Berns 2008).

The Northern Rocky Mountain Wolf Recovery Plan (USFWS 1987) identifies key components of wolf habitat as a sufficient, year-round prey base of ungulates and

alternate prey; suitable and somewhat secluded den and rendezvous sites; and sufficient space with minimal exposure to humans.

Increases in human activity both stationary and mobile by SERE School could increase potential for human exposure. The effect could be to displace wolf activity to more isolated lands or to maintain the current level of transient use. SERE School operations are instructed by OI-60-1 to report sightings to IDL. The result would be to assess whether relocation or halting operations is necessary and to increase the database of observations for USFWS and IDFG.

Effects to prey availability will be insignificant. Some displacement may occur away from static camps and noise making activities but probably not entirely out of the area. Collection of small mammals and a few deer is limited by a IDFG "game take" collection permit with the purpose of not reducing populations below sustaining levels.

SERE School activities may decrease the potential for selection of den and/or rendezvous site selection. Although this potential is tempered by current conditions that lower isolation by existing land uses of intensive forest practices, high road density, increasing year-round recreational/ residential development, and increasing use by off road vehicles by recreating public in all seasons. The increase likely by SERE School's activities is relatively insignificant relative to other influences on habitat quality.

Considering SERE School's proposed activities in the context of the available range for the grey wolf the cumulative effect is insignificant relative to present and future land uses. Levels of disturbance are concentrated within an area already experiencing a moderate level of human disturbance effects and the area is adjacent to federal lands with a much larger tract of isolated lands available to the grey wolf.

Grizzly Bear (Status: Federally Endangered)

Important grizzly bear habitat occurs on U.S. Forest Service land to the north and east of the proposed activity area and falls within the Selkirk Recovery Zone (U.S. Fish and Wildlife Service 1993) and as mapped by Idaho Panhandle National Forest GIS database (USFS 2008). "One or two" grizzly bear sightings are reported annually in and around the Coolin, ID area (Terra-Berns 2008) which suggests that it is likely that grizzly bears may frequent the Jack Pines Flat area.

In general, within suitable habitat, grizzly bears move seasonally, seeking low elevation, low gradient riparian areas, meadows, south facing ridges, and graminoid parks in the spring for snow-free sites with an abundant grass/forb component. In the summer, grizzly bear use higher elevation areas where they forage for grasses, forbs and shrubs. In the fall, berry-producing plants located in mixed shrubfields, old burns, meadows, and timber harvest units receive heavy use by grizzly bear. Grizzly bear are extremely sensitive to human disturbances and seek isolation from humans when possible.

The population in northern Idaho is slowly increasing by an estimated 1.5% per year. Threats to populations include human persecution, habitat alteration, human-caused displacement, and long-term genetic implications of inbreeding. Human-caused mortality may result from mistaken identity for black bear, intentional poaching, self defense, and conflicts associated with livestock, food storage, and garbage disposal.

The proposed permit/lease area does not provide all habitat components required for recovery. Vegetation cover is fragmented; high road density, residential homes, year-round recreation, and the community of Coolin all reduce security and isolation required for the grizzly bear. Suitable forage exists in plantations and along riparian stringers which support willow, dry site shrubs and grasses. Areas of huckleberry are scarce in the area and are more abundant in the higher elevations of adjacent national forest lands. No dens have been reported and neither current habitat nor land use suggests suitability for denning in the future. Associated wetlands and riparian stringers along Priest River and its tributaries could provide a linear travel corridor for spring and fall travel. The patchwork distribution of forage areas, lack of denning habitat, and lack of isolation are most likely reasons for exclusion of the area in the Selkirk Grizzly Bear Recovery Zone.

Increasing population, attraction of human refuse areas, forage, and riparian travel corridors may be reasons for occasional bear sightings outside of the Recovery Zone. The risk for habituation to human food sources and detrimental human encounters is high in this area.

SERE training activities, especially mobility exercises, may take place anywhere within the permit area including in areas within forage components of interest to the grizzly bear. Habituation to human food source and displacement into more populated areas are the most likely potential impacts. U.S. Air Force Operating Instruction OI-60-1 requires that campsite food be stored in bear resistant containers or in a manner in which bears can not gain access to the food. There remains the risk of habituating bears if required campsite food storage and sanitation measures are not followed. Oversight and monitoring is conducted by the Forest Liaison Officer to assure performance of the Operating Instruction. Displacement of the bear could pressure the bear into areas of higher human concentration increasing the likelihood of human- bear encounters. On the other hand, increases in human disturbance may pressure the bear to remain or return to more isolated areas on U.S. Forest Service lands. This result actually may have a positive effect in protecting the grizzly bear from detrimental human-bear encounters. The IDFG collection permit does not list black bear as an approved collection species and hence the possibility of confusing a grizzly for a black bear is avoided.

Activities of increasing public recreational use and development and continued forest management will result overtime in a sustained level of habitat disturbance, a decline in what is already reduced opportunity for seclusion, and an increase in potential of human exposure. Current and future land use precludes improvement of this situation. The cumulative effect of adding SERE School activities is insignificant relative to present and future uses.

Bald Eagle (Status: Federally Threatened)

There is currently perch, nest, and foraging habitat along the Priest River and Priest Lake to the north. The IDFG Comprehensive Wildlife Conservation Strategy (IDFG 2005) states that the highest activity in northern Idaho is along the Pend Oreille River and maps most breeding sites along the Kootenai River and Coeur d'Alene drainage. Nesting or concentrated foraging activities along Priest River have not been observed by Idaho Department of Lands foresters (Zalweski 2008) nor are these activities on record with

IDFG (Terra-Berns 2008). Although the habitat and proximity to other use areas suggests that use is likely to occur.

Essential habitat components for bald eagles, as identified in the Recovery Plan for the Pacific Bald Eagle (USFWS 1986) include an abundant food source of fish, waterfowl, small mammals and various types of carrion and forests with suitable nest, perch, and roost trees adjacent to adequate food supply.

The greatest threat to bald eagles in Idaho is disturbance during the nesting period from activities such as timber harvest operations, human recreation, and construction projects.

SERE School activities will have little to no impact on bald eagle habitat required for its recovery. U.S. Air Force Operating Instructions OI-60-1 require that all camps be located at least 300 feet from the edge of perennial streams and wetlands which will place camps outside of riparian areas most likely used by bald eagles. Existing gravel pits and clearings well away from riparian areas are to be used for helicopter landings which will limit helicopter disturbance. Tree felling will be limited to immature trees not suited for nesting or perching and taken from stands that are fully or overstocked. Road maintenance activities are transitory and noise is short duration. Noise from noise making devices is transitory and is of short duration. The use of noise making devices will be limited to 300 feet away from perennial streams and would be further limited as a result of discovery of a nest. Take of fish and small mammals is low in number and will have insignificant reduction in available prey base.

SERE School has operated under conservation protocol for the bald eagle with the Colville National Forest for many years. The protocol is to coordinate "suggested avoidance areas" with the U.S. Forest Service and develop an avoidance map of all known eagle activity within the area. A similar requirement is required for the Jack Pine Flats area. Any nests and all sightings are to be reported to IDL.

Considering the cumulative effect context, mitigation measures to protect during the nesting period in the event a nest is discovered has a long history of successfully protecting the bald eagle in other permit areas. It is likely mitigation measures will adequately protect the bald eagle and meet recovery plan objectives.

Canada Lynx (Status: Federally Threatened)

Less than 100 individuals are thought to exist in Idaho. In Idaho, Canada lynx inhabits montane and subalpine coniferous forests typically above 4000 feet (McKelvey et al. 2000 in IDFG 2005). Dens are usually in mature forests. Individuals are wide-ranging and require large tracts of contiguous forest. The best available information indicates that overall habitat suitability of an area is overwhelmingly tied to the availability of snowshoe hare, their principle prey species and that lynx survival is especially tied to foodbase availability and lack of competition for food in the winter.

Habitat degradation, fragmentation, and loss are the primary threats to lynx populations. High road density and timber harvest causes habitat fragmentation. Habitat alteration, increase in human access, and hardened snow surfaces from snowmobiles have been associated with increasing competitor species access to lynx foodbase. Hardened snow surfaces allow heavier species such as bobcat and cougar easier access to lynx hunting areas.

Analysis of lynx habitats generally focuses on the interspersed of three key habitat components (USFS 2000) as follows:

- Forage cover for prey species - generally densely stocked regenerating timber stands of sufficient height (minimum 6 feet) and species composition (deciduous trees and shrubs or lodge pole pine) to provide food and cover for wintering snowshoe hare.
- Denning Cover - generally mature and/or old-growth coniferous stands with high densities of fallen logs, and usually located on northerly aspects providing cooler microclimates.
- Travel corridors and cover - generally linkages between foraging and den sites. Corridors are semi-permanent land features (forested ridges and saddles, road edges) or general forest areas containing trees and/or shrubs of sufficient size and density (minimum 180 stems per acre) to provide cover for traveling lynx.

According to the Canada Lynx Conservation Strategy and Assessment (LCAS) and as mapped in Idaho Panhandle National Forest GIS database, Jack Pine Flats is not considered critical habitat. The permit area is too low in elevation, not isolated, has groomed winter snowmobile trails, and does not support boreal forest components. Anecdotal sightings are recorded with IDFG (Terra-Berns 2008) which indicate that lynx may cross through the permit area to adjacent habitat or to explore food availability in the permit area. No dens have been reported nor does the habitat suggest such activity would occur, i.e., forest fragmentation, high road density, and lack of contiguous mature forest.

Potential impacts to lynx by SERE School activities can be discounted by the fact that habitat disturbance by current land uses and that natural vegetation potential to develop suitable habitat for denning or quality foraging is low. Further habitat alteration by SERE School activities will be insignificant to the overall critical habitat requirements for lynx. OI-60-1 limits the size, type, and amount of live and dead/down trees and boughs that can be used and limits vehicular use to established roads or approved skid trails and limits snowplowing to IDL approved areas. Snowplowing will most likely take place in the spring when lynx are at higher elevation. At most SERE School activities may displace transitory movement but not lynx activities directly linked with their survival. SERE School is required to report sightings to IDL and to the Forest Liaison Officer so that adjustments in operations can be made if necessary. This measure will further provide protection for unanticipated potential impacts.

SERE School is permitted to collect 25 snowshoe hare by its IDFG "take" permit. In the event that snowshoe hare occupy the permit area and they are collected, this reduces the potential lynx foodbase somewhat. It is surmised that IDFG's decision to allow collection of snowshoe hare is within a limit that will not substantially place lynx at risk. SERE School is required to report annually to IDFG animals taken. Reporting will provide IDFG important information on the prevalence of this prey species in the area.

Within the cumulative effects context, increasing public recreational use and development and continued forest management will result overtime in a sustained level of habitat disturbance and an increase in potential of human exposure. Winter use by snowmobiles reduces the likelihood of lynx using the area for winter foraging. Land ownership precludes improvement of this situation. The addition of SERE School activities and

their required conservation measures, result in no net change in current or future conditions, temporally or spatially.

Other Species of Concern and/or Management Indicators

California Wolverine (Status: U.S. Forest Service R6 Sensitive)

Wolverines are solitary, highly mobile animals that typically den in high elevation areas associated with steep inaccessible terrain. Wolverines are known to move and use a variety of habitat types and conditions from high elevation to low riverine types. They are known to utilize a wide variety of food sources and have been described as opportunistic omnivores.

SERE School activities will not significantly detract or enhance these conditions from the current condition. Suitable den conditions do not exist within the proposed permit/lease area and hence no effect is anticipated. Temporary displacement of wolverine movement or foraging may occur, but the potential and magnitude of displacement is considered to be very low. Combined with other land use disturbances occurring presently or predicted in the near future, SERE School activities present a potential for temporary displacement or concentration of areas available for movement within the proposed permit/lease area for the wolverine. Due to the large tracts of federal lands in the surrounding area, maintenance of areas for isolation and movement will be maintained over the long term.

Peregrine Falcon (Status: U.S. Forest Service R6 Sensitive/ IDFG Threatened)

Loss of habitat and disturbance from human activities are the greatest threats to the peregrine population (White et al. 2002 in IDFG 2005). Rock climbing, nest disturbance, and the sudden appearance of helicopters can cause breeding peregrines to abandon nest sites. There are currently no known active peregrine falcon nest sites in the area but peregrines have been observed in the area. Peregrine falcons are more likely to be observed in or near riparian areas and promontory slope positions near forest openings. During nesting, females may fiercely defend their location which makes their nest locations somewhat easy to identify. They nest in cliffs, cut banks, man-made structures, and in trees.

SERE School activities do not include rock climbing and campsites are not in close proximity to perennial streams which precludes possible encounters of concentrated human activity in two primary nesting and foraging habitats for peregrine falcon. It is possible that during mobility exercises trainees may travel near nest sites. It is doubtful that this kind of disturbance would adversely effect nesting or fledge. However, helicopter activity over or near cliff sites and along the Priest River has the potential to disturb/displace peregrines in the vicinity. To reduce this potential, sightings will be reported to the landowner and to the Forest Liaison Officer so that operations may be adjusted as necessary.

Pacific Western Big eared Bat (Status: U.S. Forest Service R6 Sensitive/ IDFG Species of Concern)

Big-eared bats require caves, old mines, old growth large diameter trees, or buildings as roost and hibernation sites. They forage for insects over a variety of habitats

ranging from open meadows to closed forest. Loss of habitat is the largest likely threat to big-eared bats.

SERE School activities will not remove large diameter trees or alter vegetation in a way that potentially would adversely impact habitat. No known roost sites have been identified in the area. No direct, indirect, or cumulative impacts are anticipated.

Big Game: Elk/Deer/Moose (Status: U.S. Forest Service Indicator Species/IDFG Species of Concern)

Maintenance of adequate quality and quantity of forage and browse in winter range and habitat security, especially during the winter and fawning/calving season, are the most essential management factors for these species. Forage quality and quantity can be influenced by vegetation removal and by non-palatable noxious weeds competing with forage plants. Habitat security is maintained with dense forest cover and/or seasonal or year-round road closures.

SERE School activities on the Colville National Forest (USFS 2000) indicate that although human disturbance does occur within big game habitats, the composition of wildlife communities appears to be unchanged when compared to areas not used by SERE School. Since activities began in 1965, populations of elk and moose have expanded.

U.S. Air Force Operating Instructions OI-60-1 reduces the potential for spread of noxious weeds by vehicles through inspection for and removal of seeds prior to moving from site to site. Vehicles will be limited to open roads unless prior permission is obtained by the landowner, IDL. Annual coordination meetings and landowner supervision of off-road vehicular travel will minimize the potential for impacting known calving/fawning areas or key winter range habitat. SERE School activities will not occur during modern firearm hunting season which will eliminate the potential for an increase in human disturbance during a period of time of higher stress for the animals.

Three-toed Woodpecker, Pileated Woodpecker, and Other Woodpeckers (Status: U.S. Forest Service Indicator Species/IDFG Species of Concern)

These species serve as Management Indicator Species that nest in cavities of larger diameter trees. Minimum tree diameter requirements for nesting are 6 inches (downy woodpeckers) but more typically these species use snags of 16 inch diameter (Three-toed woodpecker) or larger diameter (pileated woodpeckers).

The U.S. Air Force Operating Instructions OI-60-1 prohibit the use of live trees greater than 8 inches diameter and snags and downed logs greater than 10 inches diameter. And no removal can occur within 300 feet of perennial streams and 50 feet from seasonal streams and wetlands. These requirements will protect from impacts to existing and potential cavity habitat except for the downy woodpecker. The downy woodpecker is common, well distributed throughout the Inland Northwest, have small territory requirements (5-9 acres), and are frequently associated with riparian habitats. SERE School utilization of snags and smaller green wood materials will be limited to near campsites and is restricted from riparian areas, so the total area of potential impact on potential downy woodpecker habitat is relatively small. Additionally, existing

forest condition offers a high amount of smaller diameter trees as a result of past wildfire and timber harvest; hence existing suitable habitat is abundant in the area.

Barred Owl/Fammulated Owl (Status: U.S. Forest Service Indicator Species/IDFG Species of Concern)

These species were selected as Management Indicator Species for species dependent on mature and over-mature forest conditions. Fammulated Owls favor mature forests with openings along their edge or multi-storied forests. Barred Owls prefer deep moist forests and riparian areas but may forage for insects along forest openings. These species are most impacted by clearcut harvest, residential development, and wildfire. It is not known if these species occur in Jack Pine Flats.

SERE School's use of vegetation materials are limited to small diameter snags and trees and the amount of removal will not impact mature forest habitat. There are no anticipated impacts to these species as a result of SERE School activities.

American Marten/Fisher (Status: U.S. Forest Service Indicator Species/IDFG Species of Concern)

The marten is another indicator species dependent upon mature and old growth mesic conifer forests. They are known to use other habitat types such as openings and riparian areas. Populations in Idaho have decreased from over harvesting by trappers and loss of habitat to forest fires and timber harvest. Cover in the form of vegetation cover and down logs appears to be an important component of the habitat (Lugue 1983 in IDFG 2005).

SERE School activities may cause displacement of the marten to other suitable habitat within the area similar to other human activity already existing in the area. Vegetation and down log removal is limited near campsites and is a relatively small area. Limits on size of down logs and trees removed will minimize impacts to habitat cover. Potential impact to the marten is anticipated to be low and in the form of displacement to suitable habitat within the area.

Harlequin Duck/Other waterfowl (Status: U.S. Forest Service Indicator Species/IDFG Species of Concern)

The Priest River offers quality, diverse aquatic habitat for waterfowl and other aquatic dependent species. Habitats include slow moving backwaters, wetlands and lakes from abandoned reaches, and the swift moving mainstem with overhanging banks and islands. Adjacent uplands are important for staging and breeding; larger wetlands attract and hold molting birds and fall migrants (Ringleman 1992 in USFS 2000). Large snags are important for wood duck and merganser nesting.

SERE School campsites are prohibited in or near wet meadows and riparian habitats and large snag removal is prohibited. Water gathering for camp and fishing instruction activities will require school participants to travel to and through important waterfowl habitat along the Priest River. U.S. Air Force Operating Instructions OI-60-1 require that disturbance activities such as noise making associated with resistance and evasion training will avoid these areas. Travel ways to the water's edge associated with campsites may cause displacement to other more isolated parts of the river. Isolated

areas of the river are abundant and it is anticipated that if displacement occurs, no significant impact will occur to the species.

Westslope Cutthroat Trout (U.S. Forest Service - Sensitive/IDFG Species of Concern)

The westslope cutthroat has experienced a decline in distribution and abundance in Idaho due to loss of habitat and a degradation of habitat capacity. Westslope cutthroat normally require cold, pristine waters and a complex in-stream habitat with large woody debris and overhanging banks for cover. They are dependent upon gravelly stream substrates free of fine sediment for egg survival and for abundance of aquatic invertebrates for food. Over-harvest, sedimentation, loss of large trees and snags in riparian areas, and migration blockages from road crossings and low flows, and elevated temperatures all have an impact on suitable habitat.

Potential increases in sedimentation may be caused by SERE School activities from minor road improvement with heavy equipment and snow removal; foot trails from camp to the water's edge; and off road vehicular use. This potential will be minimized through landowner supervision and coordination of campsite location and road improvement/snow removal activities. There is no potential for impact to large wood debris as tree or log removal is prohibited in the zone where wood debris recruitment could be impacted. SERE School's IDFG "take" permit prohibits fishing of westslope cutthroat trout. The potential for misidentification or mortality from catch and release is minimized by environmental education conducted by the Forest Liaison Officer and by SERE School instructors. Identification pictures are located in OI-60-1. All animals taken by SERE School must be identified and listed in an annual report to IDFG which will serve as a monitoring indicator of effectiveness of the requirement.

3.7.2 Native Vegetation

Affected Environment

Native vegetation in the proposed permit/lease area includes highly diverse coniferous temperate forest communities and riparian communities. Tree species represented are white pine, ponderosa pine, Douglas-fir, western redcedar, western hemlock, lodgepole pine, grand fir, Engelman spruce, birch, aspen, and black cottonwood. Riparian areas and moist depressional areas support western redcedar and spruce and may have non-forested openings that support willow, sitka alder or spirea. Steep southerly slopes are dominated by Douglas-fir and ponderosa pine. Lodgepole pine is a major tree species on the "flats" Jack Pine Flats and is indicative of cold air drainage and/or soil infertility. Shrub species are well represented in most forest communities and include maple, ninebark, bearberry, Oregon grape, red-osier dogwood, prince's pine, ocean spray, and snowberry. Grasses include mountain brome, elk sedge and other sedges, and pinegrass.

No federally listed threatened or endangered or proposed plants or forest communities are known to occur in the proposed permit/lease area. There are several plants with "survey and manage" requirements for nearby U.S. Forest Service lands that may occur in the analysis area. Several species listed on Idaho's Species of Concern for Bonner County could occur as they

are known to be supported by have environmental conditions similar to what exists in the analysis area. Table 3 identifies plant species of special concern that require special consideration by SERE School. No field surveys have been conducted to confirm presence of these species for this assessment.

Table 3. Plant Species of Special Concern

Sensitive Species	Habitat
<i>Astragalus microcystis</i>	Western redcedar-western hemlock forests, streambanks, floodplains, 2300-4700 ft
<i>Botrychium ascendens</i>	Western redcedar-western hemlock forests, streambanks, floodplains, 2030-4600 ft
<i>Botrycium campestre</i>	Dry to moist meadows. 3000-3400 ft.
<i>Botrycium crenulatum</i>	Western redcedar-western hemlock forests, streambanks, floodplains, 2030-4600 ft
<i>Botrycium hesperium</i>	Dry to moist meadows. 3200-3300 ft.
<i>Botrycium lineare</i>	Western redcedar-western hemlock forests, streambanks, floodplains, 2000-4000 ft
<i>Botrycium paradexum</i>	Dry to moist meadows, perennial and intermittent streams, 2500-3600 ft
<i>Botrycium pedunculatum</i>	Dry to moist meadows, perennial streams 2500-3300 ft.
<i>Carex flava</i>	Fens, bogs, wet meadows and ponds 2420-4300 ft.
<i>Cicuta bulbifera</i>	Marshes, bogs, wet meadows, edge of ponds, shores of beaver ponds, shallow standing water 2200-3720 ft.
<i>Dryopteris cristata</i>	Fens, wet meadows, and wooded swamps, 2150-4100 ft.
<i>Eriophorum viriacaratum</i>	Fens and marshes. 2900-4650 ft.
<i>Gaultheria hispidula</i>	Moist areas in coniferous woods 2960-3360 ft.
<i>Geum rivale</i>	Wet meadows, fens, bogs, perennial streams and shrub wetlands 2900-3700 ft.
<i>Hypericum majus</i>	Mudflats and river shorelines, 1500 ft.
<i>Lycopodium inundata</i>	Bog 1800 ft.
<i>Muhlenbergia glomerata</i>	Bogs, fens, streambanks, wet meadows, marshes, lakes. 2950-3300 ft.
<i>Ophioglossum pusillum</i>	Moist meadows. 2800-3200 ft.
<i>Salix candida</i>	Fens. 2400-3000 ft.
<i>Salix macalliana</i>	Fens. 2400-3000 ft.
<i>Sisyrinchium septentrionale</i>	Dry to moist meadows, perennial streams. 2300-3850 ft.
<i>Spartina pectinata</i>	Sandy, silt loam soil adjacent to areas seasonally flooded and moist in late summer along large rivers. 2000 ft.
<i>Thalictrum dasycarpum</i>	Dry meadows and mixed conifer forests on riverbanks, floodplains. 2000 ft.
<i>Vaccinium myrtilloides</i>	Western redcedar/western hemlock forest. 2000-3000 ft.
<i>Viola renifolia</i>	Moist lowland forests near perennial streams. 2500-3200 ft.

Effects Analysis

No-Action Alternative

As a result of this alternative, there will be no change in vegetation and no potential for impacts to species with special consideration. There will be no potential for discovery of occurrence of species with special consideration.

Proposed Action Alternative

Indirect/Direct Effects:

There will be no impacts to federally listed species protected under the Endangered Species Act as none are known or expected to occur in the analysis area.

There are several species with other protection designations by federal and state land management agencies that have the potential to occur within the analysis area. Most all of these species have a narrow range of environmental requirements and are likely to occur in micro-sites areas such as rocky areas, wetlands, and riparian areas. Several management requirements listed in U.S. Air Force Operating Instructions OI-60-1 provide protection from potential impacts to these species. These requirements are: 1) campsites must be located 300 feet away from perennial streams and 50 feet away from seasonal streams; 2) a list of plant species not to be collected and to be otherwise protected from impacts are identified and instruction is provided on their identification; 3) training exercises are to avoid meadows and wetland areas, and 4) discovery of listed plant species are to be reported to the Forest Liaison Officer and/or landowner so that operational adjustments may be made as necessary. Also, a positive benefit is that in absence of formal surveys, protected plant species have a higher likelihood of being discovered because of the SERE School's focus on plant identification and avoidance of protected species.

Use of native materials for structures and for demonstration purposes will remove native vegetation but should have very little to no effect on distribution or sustainability of species. The amount of use is limited by the proposed permit/lease and by OI-60-1. Trees removed are limited to pole size or smaller and location is restricted by the landowner. Firewood is limited to dead standing and down with an emphasis toward lodgepole pine, an abundant tree species in the area. Restricted areas for collection are riparian areas and as designated by landowner. The potential overall negative effect will be a lower than natural amount of dead wood around campsites similar to dedicated recreational campground areas which can reduce materials available for nutrient cycling. A positive effect may result from thinning pole sized trees from overly dense forest stands which allows larger trees in the stand to grow more thriflily.

Soil compaction and trampling associated with campsites will reduce vigor of the native vegetation in these areas. The impacts to diversity and vigor of vegetation are expected to be similar to recreational camp sites. The area affected is estimated to be less than 1% of the proposed permit/lease area. Abandoned SERE campsites will be revegetated but it will take years for natural diversity to be restored in these areas. Restoration of diversity will be aided by the fact that campsite areas are relatively small and re-population of species from adjacent unaffected areas should take place readily.

Cumulative Effects:

Alteration of vegetation diversity and vigor associated with campsites adds to the degraded area currently affected by dispersed and dedicated recreational campsites, roads, Coolin sewer site, and gravel pits. The total area affected would be under 4-5% of the proposed permit/lease area.

3.7.3 Timber Management

The proposed permit/lease area is intensively managed for forest products by IDL. The timber management plan assures a sustained yield of timber products from the area. Long term site productivity of forest stands and maintenance of access for harvest and other silvicultural practices are an important component of IDL's management needs for the area.

Affected Environment

The proposed permit/lease area is managed by IDL an objective of sustained revenues for the state of Idaho. Forest products are the major income generator with smaller revenues generated from land leases.

*Effects Analysis*No-Action Alternative

No effects will result from this alternative.

Proposed Action Alternative*Indirect/Direct Effects:*

Annual coordination meetings to plan SERE school use areas, to coordinate harvest plans for the year, and to discuss potential safety hazards as a result of harvest activities will reduce potential impacts to IDL's timber harvest program and to the SERE School program. Harvest plans may require temporary relocation of SERE School activities but annual coordination will assure adequate lead time for adjustments. Potential safety hazards presented by harvest activities will be reduced by annual coordination discussions and by the role of the Forest Liaison Officer.

Cumulative Effects:

No cumulative effects are anticipated to IDL's timber management program. Adjustments in location of campsites and in exercise areas will be made to accommodate IDL harvest activities. Overtime, there will be less area in mature forest and more area in regeneration or immature forest settings. This may affect distribution of dense cover required by certain SERE exercises but the size of the proposed permit/lease area should provide for adequate opportunity for a diverse environmental settings.

3.7.4 Noxious Weeds

Federal legislations and regulation that require control of noxious weeds and the evaluation of potential impacts include the National Environmental Policy Act (1969) and Executive Order #13112 (February 1999).

The state of Idaho has designated 57 different species of plants as noxious weeds in which the introduction, spread, and damage to agriculture is of concern and should be controlled or contained.

Affected Environment

Several species were identified during a traverse of the analysis area in Fall 2008. The most common noxious weed species observed were several species of knapweed including spotted and diffuse; musk thistle, Canada thistle, Dalmation toadflax. St. Johnswort, and tansy ragwort.

Roads, powerline rights of way, gravel pits, disturbed riparian areas, and timber harvest areas were primary areas where weeds were observed. These areas will be sources for further spread. People, animals, vehicles, heavy equipment, wind, and water move seeds and plants from area to area and can be sources for introduction of new species from areas outside of the analysis area.

Effects Analysis

No-Action Alternative

The hazard for spread and new introductions of noxious weeds will remain at current levels. This alternative will result in no impact to current conditions.

Proposed Action Alternative

Indirect/Direct Effects:

Vehicles transporting SERE School personnel and trainees and foot traffic through weed infested areas will increase potential risk of weed spread from place to place within the analysis area and will increase risk of new weed introduction from places outside of the analysis area. U.S. Air Force Operating Instructions OI-60-1 require that efforts be made to avoid the spread of noxious weeds by: 1) removing soil, seeds, vegetative material that could contain or hold seeds from off-road vehicles prior to moving to operational areas; and check vehicles for weed seeds and remove weed seeds found prior to leaving heavily infested areas. Revegetation of campsites no longer in use will potentially reduce weed spread into new areas.

SERE School personnel are trained in weed identification and will be a source of information on locations of infestations which could assist the landowner in their efforts to control noxious weeds.

Cumulative Effects:

The potential risk over the long term in rate of spread, distribution, and new species introduction is likely less for the proposed action than for other land uses occurring in the analysis area. Unregulated use by the public and transport by natural processes pose a greater source spread or introduction of noxious weeds than regulated SERE School activities. Mitigation measures proposed by SERE School will lessen risk of long term impacts by their activities. A positive impact may result from information transfer to the landowner on locations of weed infestations.

3.8 Infrastructure and Land Use

Infrastructure consists of the systems and physical structures that enable a populace to function. Land use refers to real property classifications of conditions and uses either present or planned future goals.

For the purposes of this assessment, the analysis area is defined as the proposed permit/lease area.

Affected Environment

Two paved thoroughfares provide access to the proposed permit/lease area. Highway 57 delivers traffic from Highway 2 north to the Priest Lake area and along the north boundary of the proposed permit/lease area, Coolin Road, provides access to Coolin and the Priest Lake area. The majority of road access within the proposed permit/lease area is unpaved either with a gravel or native road surface. The uses of these roads are for local commercial, residential, and recreation traffic. The roads are currently either maintained by Bonner County or IDL. All but the main collector roads are considered seasonal roads, not maintained for vehicular use in the winter.

In-holdings within the proposed permit/lease area are three gravel pits, the sewage treatment filtration area for the community of Coolin, Idaho, and several private land holdings (See Figure 2). U.S. Forest Service is the major landowner adjacent to the proposed permit/lease area boundary.

The proposed permit/lease area is state owned, managed for the public benefit by IDL. IDL's mandate is to generate revenues for the state and primarily does so through harvest of timber. Recreation is a secondary land use on state lands. Other uses are extraction and storage of gravel and sewage treatment for the community of Coolin, Idaho.

Timber management involves annual harvest and stand improvement activities to produce sustained yield of forest products and revenue. The area experiences year-round recreation including boating, fishing, hunting, hiking, snowmobiling, cross-country skiing, and sightseeing. Priest Lake to the north of the analysis area attracts regional and some national recreational interest in the form of short duration visitors, seasonal visitors, and some year-round recreational residences. A developed campground managed by U.S. Forest Service is located on Coolin Road at the bridge crossing of Priest River just north of the proposed permit/lease boundary. Priest River (west border of the proposed permit/lease area) attracts boaters, fishermen, hunters, campers, and hikers. There are several areas along the River that receive concentrated summer use for camping and boat put-in/take-out. Numerous other

dispersed camping areas exist near tributary streams and along the Priest River that are used less frequently by hunters, fishermen and short duration campers. Several of the main unpaved roads within the proposed permit/lease area are maintained as a part of a local network of snowmobile trails.

Effects Analysis

No-Action Alternative

No change in current infrastructure or land use will result from this alternative.

Proposed Action Alternative

Indirect/Direct Effects:

There will be no impact to current infrastructure as a result of SERE School activities. Use of roads for transporting SERE School personnel and students for the S-V81-A course will increase current traffic on major thoroughfares by two or three buses twice weekly and four to five light trucks or passenger vans twice weekly for a maximum period of about 8 weeks. Within the proposed permit/lease area, similar traffic increases may occur on a daily basis for a short duration. Current local traffic is light and increases in traffic load by SERE School are anticipated to not create congestion above current levels created by fluctuations in commercial or recreational traffic loads. In the event of the need for S-V80-A course to temporarily use the area as an alternate training area, traffic would increase by an additional 2-3 buses, twice per week, and for a duration of as much as 49 weeks of the year. The impact of 4-6 buses twice per week is not likely to create congestion more over than increase traffic from log truck traffic from a local timber sale. The local population is accustomed to flux in travel by these activities. Use of gravel pits for helicopter landing sites will be coordinated with primary users to avoid conflicts with gravel extraction. Coordination of air space use with the local airport is required by Air Force Instruction and Federal Aviation policy. Other in-holdings will be avoided by SERE School activities and thus, no impacts to land use of these areas are anticipated.

Potential impacts to recreational users may result from SERE School campsites and training exercises. Two areas along Priest River have been identified by SERE School for primary campsites, both of which are known to be routinely used by unregulated, dispersed campers and for boat put in/take out. If the areas are used only for the Instructor Training course, S-V81-A, very few conflicts are anticipated. There is adequate land area for both uses to occur. Course activities will be limited to a two-week duration; 2-4 times a year or four to eight weeks of the year which provides for less chance of overlapping uses. In the event of alternating the S-V80-A course to the area, use will be more concentrated both in number of camps and in duration and has a greater potential for conflict with campers using the area routinely. The likelihood of both training courses using Jack Pine Flats is relatively low. SERE School plans to deploy the S-V80-A course at Jack Pine Flats only in the event that its main training area on the Colville National Forest becomes unavailable due to a natural disaster such as wildfire. If deployment of S-V80-A occurs, the duration of use would be most likely no more than 1-5 years, until their main training area becomes available again. SERE School activities may potentially displace some recreational users seeking a remote. U.S.

Forest Service lands and Priest Lake State Park nearby, present a close by alternative with similar opportunities for camping.

Mitigation measures identified in the U.S. Air Force Operating Instruction, OI-60-1 and in the proposed permit/lease will minimize overall impacts to recreation by 1) restricting SERE School activities to outside the modern firearm hunting season; 2) annual coordination meetings with IDL present an opportunity to plan locations of campsites and other activities to reduce impacts to natural resources and existing land uses; 3) snowplowing of roads on IDL endowment lands requires prior approval and coordination with snowmobile group; 4) noise associated with SERE School training will be kept to short duration and will avoid continual noise in the same vicinity; and 5) nearby campers and forest users will be notified prior to training exercises using simulated gunfire or loud noisemakers.

A positive impact of SERE School camping in areas where concentrated dispersed recreation camping has occurred is that SERE School will be required to keep these areas free of trash/garbage and to leave the areas in a "leave no trace" condition. IDL currently is not funded to regulate recreational use of these areas nor to remove trash from these areas. This condition would improve with SERE School use of the area.

Cumulative Effects:

The proposed permit/lease with IDL is for a five year period. Renewal of this permit/lease is subject to IDL's discretion which safeguards from unforeseen impacts to future land use.

SERE School's activities may displace recreational uses in areas where campsites are concentrated and are used repeatedly. The remote, primitive nature of the analysis area and adjacent federal lands offers alternative areas for dispersed camping and other recreation uses.

3.9 Safety and Occupational Health

All applicable standards, such as those required by the Occupational Safety and Health Act (OSHA) are strictly followed at Fairchild AFB and by SERE School. Base personnel are regularly briefed on hazards and safety concerns existing in their particular workplace.

Affected Environment

The current environment presents the following safety and occupation health hazards to SERE School personnel and trainees:

- Hazards attributed to vehicular operation and transportation
- Hazards attributed to operation of chainsaws and hand tools
- Hazards attributed to foot travel across uneven ground, by water, and in forests
- Hazards attributed to occupying wildlife habitat known for potential to inflict serious or lethal injuries e.g., grizzly bear, cougar, large ungulates, grey wolf, etc.

- Hazards associated with active timber harvest such as felling trees and unstable decked logs and slash

Effects Analysis

No-Action Alternative

No impact will result from this alternative.

Proposed Action Alternative

Indirect/Direct Effects:

The potential for injury as a result of SERE School activities in Jack Pine Flats is no more than for areas currently used for training. Nearly thirty years of experience operating in the similar environment of Colville National Forest provides a wealth of knowledge as to how to conduct operations in a safe manner. Regular safety instruction as well as coordination with landowner forest harvest activities and wildlife specialists will be an effective means of preventing potential hazards to the welfare of SERE personnel.

Cumulative Effects:

No cumulative effects are anticipated.

3.10 Socioeconomics

Socioeconomics are defined as the basic attributes and resources associated with the human environment, particularly population and economic activity. Federal Actions to “Address Environmental Justice in Minority Populations and Low-Income Populations” directs Federal agencies to address environmental and human health conditions in minority and low-income communities. The general purposes of this Executive Order are:

- To focus attention of Federal agencies on the human health and environmental conditions in minority communities and low-income communities with the goal of achieving environmental justice;
- To foster non-discrimination in Federal programs that substantially affect human health or the environment; and
- To give minority communities and low-income communities greater opportunities for public participation in and access to public information on matters relating to human health and the environment.

Affected Environment

Described below are the two categories, social and economic condition and environmental justice and conditions as they relate to SERE School activities.

Social and Economic Condition. Fairchild AFB is approximately twelve miles west of Spokane, Washington, in Spokane County. Population of Spokane County in 2000 was 417,939 (U.S. Census Bureau 2000). Between 1990 and 2000, Washington's population increased by 21 percent. In the same period of time, Spokane grew by sixteen percent. The top industry is education, healthcare, and social services. Public administration is the second highest area of industry, regionally. And as would be expected, there is a larger portion of the population in the Spokane area employed by the Armed Forces compared with the State.

In 2000, the unemployment rate for the region was 4.6 percent which was slightly higher than for the State at 4.1 percent. The region has a lower median household income and per capita income and a higher percentage of individuals below the poverty threshold than for the State. Education level is slightly higher for the region than for the state average.

Fairchild AFB is the largest employer in the Inland Northwest and employs approximately 5,400 military and civilian employees. The annual payroll of Fairchild AFB is approximately \$203 million and it is estimated that Fairchild AFB indirectly creates an additional 2,150 jobs and \$82 million in payroll from support jobs throughout the community.

Environmental Justice. The following was indicated as a result of the 2000 Census. Areas within and nearest Fairchild AFB have the highest population of African Americans than for the Spokane area or the State. Opportunity to attend SERE School is based upon need and has no selection criteria based upon income or race.

Effects Analysis

No-Action Alternative

No effects are anticipated by this alternative.

Proposed Action Alternative

Indirect/Direct Effects:

No local minority or low-income populations were identified in the area that would be affected by proposed SERE School activities taking place at Jack Pine Flats.

Cumulative Effects:

No cumulative effects to local minorities or low income populations are expected to be impacted disproportionately over the long term by implementation of SERE School's proposed action.

3.11 Fire Protection

Affected Environment

Wildfire hazard is a growing concern in all parts of the western U.S. including northern Idaho/eastern Washington area. Many of the fire ignitions are human caused. The Jack Pine Flats area being in close proximity to Priest Lake and Coolin, Idaho has a rural

residential/forest interface that also increases risk to human safety and structures in the event of a fire ignition in the area. Currently recreational users, homeowners, and timber harvest are the primary human-caused sources of wildfire.

Effects Analysis

No-Action Alternative

No change in the potential for wildfire will result from this alternative.

Proposed Action Alternative

Indirect/Direct Effects:

Nearly 30 years of experience on the Colville National Forest of SERE School activities indicates that incidence of fire has not increased in their training areas and that this can be attributed to rapid detection and initial-attack on fires by provided by SERE School presence (USDA Forest Service 2000).

Fire prevention measures required by U.S. Air Force Operation Instructions OI-60-1 and the proposed permit/lease specify clearing to mineral soil around fire rings, limiting size of fire rings, limiting fires during high fire danger days, and complete extinguishing of campfires. All of these procedures significantly reduce the potential for wildfire ignition.

Cumulative Effects:

No adverse cumulative effects are anticipated in the implementation of the proposed action. A positive impact may be a reduction of large wildfire spread through rapid detection and response provided by SERE School presence in the area.

Chapter 4: EA Preparer

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Appendices

Included in the Environmental Assessment Appendix:

- **Appendix A: Informal Consultation Biological Evaluation with U.S. Fish and Wildlife Service**
- **Appendix B: Applicable Laws, Regulations, Policies, and Planning Criteria**

As a result of the above, the proposed project is not expected to have any adverse effects on the environment. The project is considered to be a low-risk project and is therefore not subject to the requirements of the Environmental Assessment Act.

Appendix A: Informal Consultation Biological Evaluation with U.S. Fish and Wildlife Service



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Upper Columbia Fish and Wildlife Office
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November 24, 2008

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Department of the Air Force, Fairchild Air Force Base
92 CES/CEAN Environmental Element
100 W. Ent Street
Fairchild AFB, WA 99011

Subject: U.S. Air Force SERE Training at Jack Pine Flats; FWS Ref: 1-9-09-L-0012 (File No. 380.0000)

Dear Mr. Wald:

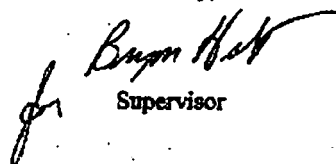
Thank you for your October 17, 2008, letter referencing a biological evaluation (BE) for the U.S. Air Force SERE training activity located at the Jack Pine Flats area, south of Coolin, Idaho. Your letter was received in our office on October 21, 2008, and requested our concurrence with your determination of effect for the grizzly bear (*Ursus arctos*), gray wolf (*Canis lupus*), Canada lynx (*Lynx canadensis*), and bull trout (*Salvelinus confluentus*).

We have reviewed the information provided and concur with your finding that the proposed action "may affect, but is not likely to adversely affect" grizzly bears, gray wolves, Canada lynx, and bull trout. Concurrence by the Service is contingent upon implementation of the action, as described in the BE.

This concludes informal consultation pursuant to section 7(a)(2) of the Endangered Species Act of 1973, as amended (Act). This activity should be re-analyzed if new information reveals that effects of the action may affect listed species or critical habitat in a manner, or to an extent, not considered in this consultation; if the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this consultation; and/or if a new species is listed or critical habitat is designated that may be affected by this project.

If you have further questions about this letter, or your responsibilities under the Act, please contact Bryon Holt at the above address (telephone: 509-893-8014; fax: 509-891-6748).

Sincerely,


Supervisor

cc: IDFG, C&A

Appendix B: Applicable Laws, Regulations, Policies, and Planning Criteria

32 CFR. Part 190, *Appendix--Integrated Natural Resources Management*

32 CFR. Part 989, *Environmental Impact Analysis Process (EIAP)*

AFI 32-7062, *Air Force Comprehensive Planning*

AFPD 32-70, *Environmental Quality*

Bald Eagle Act of 1940 (16 U.S.C. 668-668d)

DODI 4715.3, *Environmental Conservation Program*, May 3, 1996

DoD Regulation 5400.7-R, *DoD Freedom of Information Act Program*, May 22, 1997

Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543)

Executive Order 11514, *Protection and Enhancement of Environmental Quality*, March 5, 1970

Executive Order 11990, *Protection of Wetlands*, May 24, 1977

Executive Order 12962, *Recreational Fisheries*, June 6, 1995

Executive Order 13112, *Invasive Species*, February 3, 1999

April 22, 2000

Executive Order No. 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, January 10,

2001

Federal Noxious Weed Act of 1976 (7 U.S.C. 2801)

Federal Water Pollution Control Act of 1977 (Clean Water Act), as amended (33 U.S.C. 1251-1376)

Fish and Wildlife Conservation Act of 1980 (16 U.S.C. 2901)

Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661 *et. seq.*)

Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1601 *et. seq.*)

Migratory Bird Treaty Act, as amended (16 U.S.C. 703 *et. seq.*)

National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. 4321-4347)

NFPA 1977 – *Protective Clothing and Equipment for Wildland Fire Fighting*

Soil and Water Conservation Act (16 U.S.C. 2001)